



Energy, Mines and
Resources Canada

Énergie, Mines et
Ressources Canada

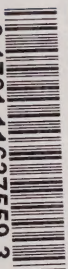
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OFFSHORE EXPLORATION

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INFORMATION AND PROCEDURES
FOR OFFSHORE OPERATORS

8th ISSUE

APRIL 1979

REPORT EI 79-4





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**Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Canada**

OFFSHORE EXPLORATION

April 1979

8th Issue

Report EI 79-4

Information and Procedures for Offshore Operators

Pelerin

This dynamically-positioned drillship operated in the Labrador Sea in October 1978 drilling the Total Eastcan et al Roberval K-92 well to a depth of 1680 m. Total Eastcan Exploration Ltd. will re-enter this suspended well during the 1979 drilling season. Cover photo courtesy of: Total Eastcan Exploration Ltd. and Helmer Staubo & Co.

FOREWORD

The Resource Management Branch manages and administers the federal interests in mineral resources off Canada's East and West Coasts and in Hudson Bay and Hudson Strait regions.

"Offshore Exploration" is prepared by the Branch in response to the continuing need for liaison between the oil and mining industries and the various federal agencies concerned with Canada's interests offshore. The main purposes of the publication are: to introduce to operating companies the responsibilities and requirements of federal agencies concerned with the Offshore; to note some of the services available through agencies; and to list the persons who may be contacted for assistance. The publication is free and supersedes the sixth issue dated January 1977. For those who prefer a French language version of this publication, issue 7 (1978), entitled "Exploration au large des côtes" is available.

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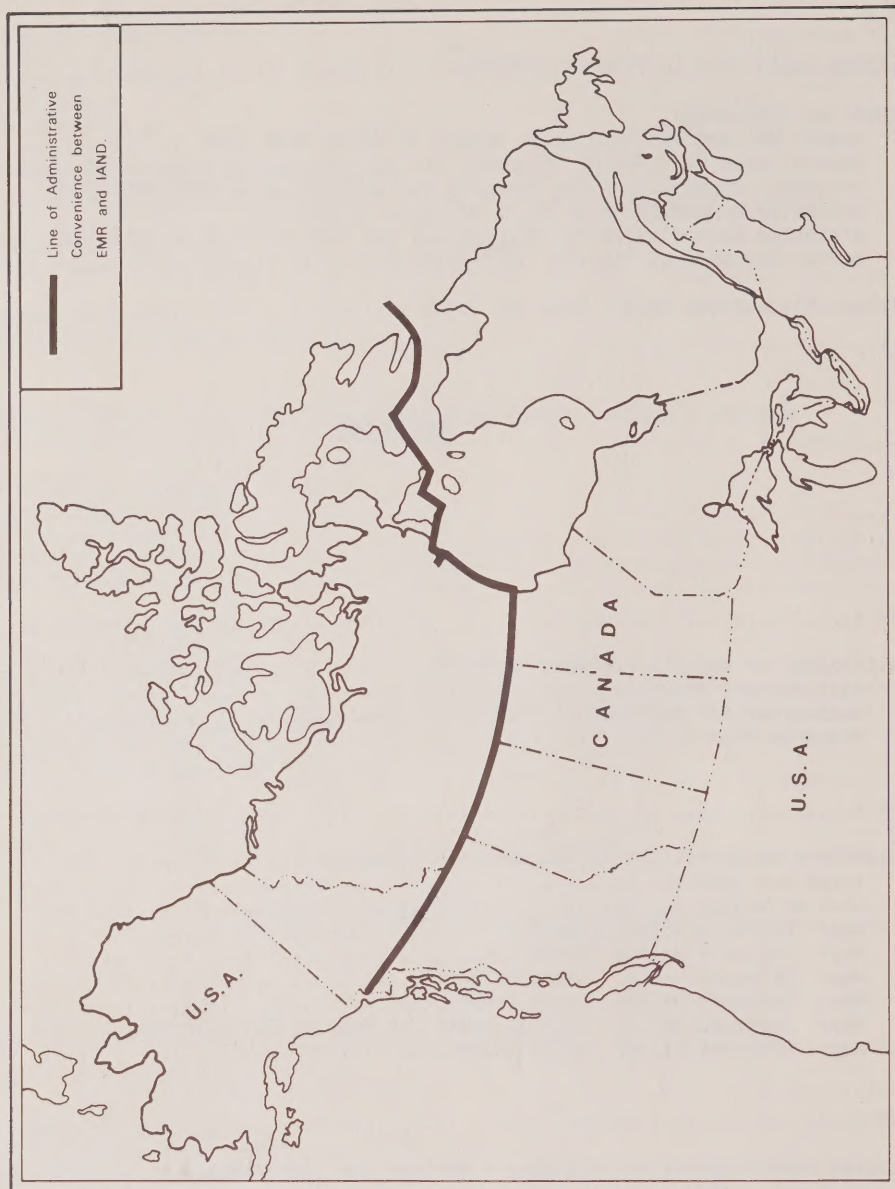
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ODECO Gulftide *This jack-up rig was used in a five-well program operated by Mobil Oil Canada Ltd. off Sable Island during drilling seasons 1977, 1978 and again in 1979. Photo courtesy of: Ocean Drilling and Exploration Co.*

PART 1

FEDERAL AGENCIES CONCERNED WITH OFFSHORE EXPLORATION

Certain federal agencies must be notified prior to the commencement of any offshore exploration activity. The operator or permittee - not the contractor - is responsible for providing the requisite advance notice of planned offshore programs to these agencies by writing direct to them.

Section A

The prime regulatory agency for mineral resource activities off Canada's East and West Coasts and in Hudson Bay and Hudson Strait regions is:

Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Section B

The following five agencies that should be informed of field programs are referred to in more detail in this Section:

Aids and Waterways Branch
Canadian Coast Guard
Department of Transport
Ottawa and Regional Offices

Fish Habitat Management Branch
Department of Fisheries and Oceans
Ottawa and Regional Offices

Environmental Protection Service
Department of the Environment
Regional Offices

Office of the Maritime Commander
Department of National Defence
Regional Offices

Offshore programs in the far North are administered by the Northern Non-Renewable Resources Branch of the Department of Indian Affairs and Northern Development, Ottawa, Ontario.

Section C

It is important to note that in the case of the Hudson Bay and Hudson Strait Regions, operators must also inform the National Research Council of proposed work. Circumstances may be such that other agencies also require notification, and these are listed in the following pages, together with the names of persons who may be of assistance. For example, since operators may be responsible for any damage caused to underwater commercial cables, it is recommended that they contact the Canadian Hydrographic Service for cable-lay data covering the area over which the work is to be performed. As another example, Customs and Excise should be contacted by the importing company if foreign vessels or equipment are to be brought in from abroad for work in Canadian waters. These agencies are referred to in Section C.

Section D

Agencies in a position to provide specialized scientific information are given in Section D.

SECTION A

This section outlines the requirements of the Resource Management Branch of the federal Department of Energy, Mines and Resources which has the lead-agency responsibility for exploration and development of mineral resources off Canada's East and West Coasts and in Hudson Bay and Hudson Strait regions.

RESOURCE MANAGEMENT BRANCH
DEPARTMENT OF ENERGY, MINES AND RESOURCES

The main objective of the Resource Management Branch in exercising the policy-advisory aspect of its resource management mandate is the development of a system of offshore mineral and energy resource management designed to encourage and maintain continued and orderly exploration of Canada's frontier mineral resources, while at the same time safeguarding the interests of the owners of those resources, the Canadian public. In light of the current energy situation, there is a particular need to discover and develop a secure source of hydrocarbon resources for the future.

On the management side, the Branch is responsible for the federal interests in mineral resources off Canada's East and West Coasts and in Hudson Bay and Hudson Strait regions, as well as the administration of those federally-owned mineral rights in the provinces that become available for development. This responsibility involves the evaluation of these rights and their disposition for development, and ensuring that all exploration and production activities in respect of them are undertaken in a safe and efficient manner consistent with the safety of human life and the protection of the natural environment.

The Branch's resource management responsibilities involve it as well in related domestic and international resource negotiations, including not only federal-provincial mineral rights negotiations, but also bilateral offshore boundary negotiations and negotiations at the United Nations level aimed at preserving the integrity of Canada's sovereign rights and resources.

Relevant Legislation and Regulation

The main statutes under which the Branch operates are the following:

- a) OIL AND GAS PRODUCTION AND CONSERVATION ACT - which provides authority for controlling all oil and gas operations

including the conservation of resources, the prevention of pollution and the safety of personnel. Canada Oil and Gas Drilling Regulations have been promulgated under this Act. Currently being prepared for promulgation under the Act are regulations concerning geophysical surveys, oil and gas production, structures, pipelines and diving.

- b) PUBLIC LANDS GRANTS ACT and TERRITORIAL LANDS ACT - The major set of oil and gas regulations affecting Canada lands promulgated under this Act are the Canada Oil and Gas Land Regulations. These Regulations deal with the issuance and maintenance of licences, permits and leases in the Offshore and in the Yukon and Northwest Territories.

- Other Regulations promulgated under these Acts include the Canada Mining Regulations, the Public Lands Oil and Gas Regulations and the Public Lands Mineral Regulations.

Information

The following information booklets are available at no cost from the Branch:

- 1) Offshore Exploration - Information and Procedures for Offshore Operators;
- 2) Specifications for Positioning Reports for Offshore Exploratory Wells;
- 3) Offshore Geophysical Surveys: Procedures and Guidelines;
- 4) Offshore Exploratory Drilling: Procedures and Guidelines.

Requirements and Approvals of Programs:

An offshore operator must notify the Branch of any proposed geological, geophysical or

research program at least 45 days in advance of anticipated commencement. In this respect, an Offshore Program Notice, a sample of which is found in Part II, must be submitted in triplicate together with relevant data such as maps indicating permit area concerned, the number of proposed lines and approximate kilometrage.

A prospective operator should notify the Branch six months in advance of the anticipated spud date of the first well in a drilling program. Four months prior to the spud date an application for Drilling Program Approval complete with the required information should be submitted. For an Authority to Drill a Well the operator must submit an application in triplicate 45 days prior to the spud date of the proposed well. Detailed procedures and guidelines concerning these items are found in our brochure "Offshore Exploratory Drilling", available at no charge from the Branch. Samples of the various forms to be submitted are found in Part II, Section A.

Communications:

As a general rule, all correspondence should be addressed to:

Director-General
Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: D.G. Crosby
Telephone: (613) 995-9351

In addition to a common telephone number (613-995-9351), the Resource Management Branch also has telex facilities (053-4366) and telecopier facilities (613-996-5707).

OPERATING DIVISIONS

Mineral Rights

The Mineral Rights Division makes available oil, gas and mining rights and ensures that the holders of such terminable grants fulfill the terms and obligations stipulated in them and in the relevant Regulations in order to maintain them in good standing.

The Division's responsibilities include: providing for the issuance of exploration rights by way of public tender; issuing, recording and administering exploration oil and gas permits, exploration agreements and production leases, as well as mining claims and mineral production leases; approving expenditures to be allowed for credit against permit and lease obligations; recording and accounting for guaranty work deposits, annual lease rentals and royalties.

For further information contact:

Director
Mineral Rights Division
Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: D.L. Tough
Telephone: (613) 995-9351

Additional information is provided under the heading - Licence, Permit and Lease Administration in Part II, Section A of this publication.

Resource Geology

This Division evaluates geological and geophysical information submitted by offshore operators and assesses the mineral resource potential of prospects and specific areas in Canada's offshore regions, as well as in respect of federally-owned mineral rights in the provinces for resource management purposes. The Division participates in the National Hydrocarbon Inventory (basis for Canada's Energy Policy) and evaluates the potential impact of deep seabed mineral resources on Canada's land-based mining industry.

The Division is responsible for requirements and procedures respecting the submission, confidentiality and subsequent examination of geophysical and geological data, including well materials, provided to the Branch in accordance with regulatory requirements. Involved here are the quality control and curation of lithologic and paleontologic materials from offshore wells, and the assembly and maintenance of a data bank of geological and geophysical information obtained from the Offshore.

For further information contact:

Director
Resource Geology Division
Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: D.F. Sherwin
Telephone: (613) 995-9351

Additional information regarding the release from confidential status of geological and geophysical reports and material is provided in Appendix A.

Environmental Assessment

The Environmental Assessment Division assesses the environmental and sociological implications of offshore mineral resource activity with a view to ensuring that projects are environmentally safe as regards the biological and physical regimes and socially and economically acceptable as regards relevant coastal communities.

The Division's responsibilities include: the evaluation of weather, sea and ice conditions in operational areas; the assessment of the effects of offshore operations on the marine and coastal biota; the approval of oil spill contingency plans submitted by Industry; and the promotion of environmental research such as the Offshore Labrador Biological Studies (OLABS) program.

For further information contact:

Director
Environmental Assessment Division
Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: M. Bell
Telephone: (613) 995-9351

Additional information regarding OLABS can be found in Part II, Section A.

Operations and Conservation

The Operations and Conservation Division exercises regulatory control over exploration, drilling and production activities, including the analysis of possible operational hazards of proposed equipment and installations, and the nature and productive

potential of reservoirs. The Division ensures that operators meet satisfactory requirements as regards the safety of personnel, the prevention of pollution, and the conservation of resources.

Control is effected by means of a supervisory system that includes procedures for approval for each proposed work program for each individual well, on-going inspections of activities as they are carried out, and authorizations in respect of any amendments or changes during the course of work.

For further information contact:

Director
Operations and Conservation Division
Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: G.R. Yungblut
Telephone: (613) 995-9351
After Hours: (613) 722-9286

Regional Offices Operations and Conservation Division

Maritime Region

The East Coast Office and Laboratory is located at Dartmouth, Nova Scotia and provides information and assistance on operational matters associated with the Scotian Shelf, the Gulf of St. Lawrence and Hudson Bay and Hudson Strait Regions. Well logs and materials, as well as copies of geological, geophysical and drilling reports, are available for examination here upon expiry of their confidential period.

Enquiries should be made to:

Offshore Manager, Maritime Region
Resource Management Branch
Department of Energy, Mines and Resources
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Name: T.W. Dexter
Telephone: (902) 426-3179
After Hours: (902) 477-5886
Telex: 019-31557

Further information regarding the availability of released reports and examination of cores, cutting and paleontological materials is found in Appendix A.

Newfoundland Region

A new office has been established in St. John's, Newfoundland for the 1979 drilling season. This office will co-ordinate operational matters associated with exploration in the Grand Banks and Labrador Shelf areas.

Enquiries should be made to:

Offshore Manager, Newfoundland Region
Resource Management Branch
Department of Energy, Mines and Resources
P.O. Box 127, Station C
St. John's, Newfoundland
A1C 5H5

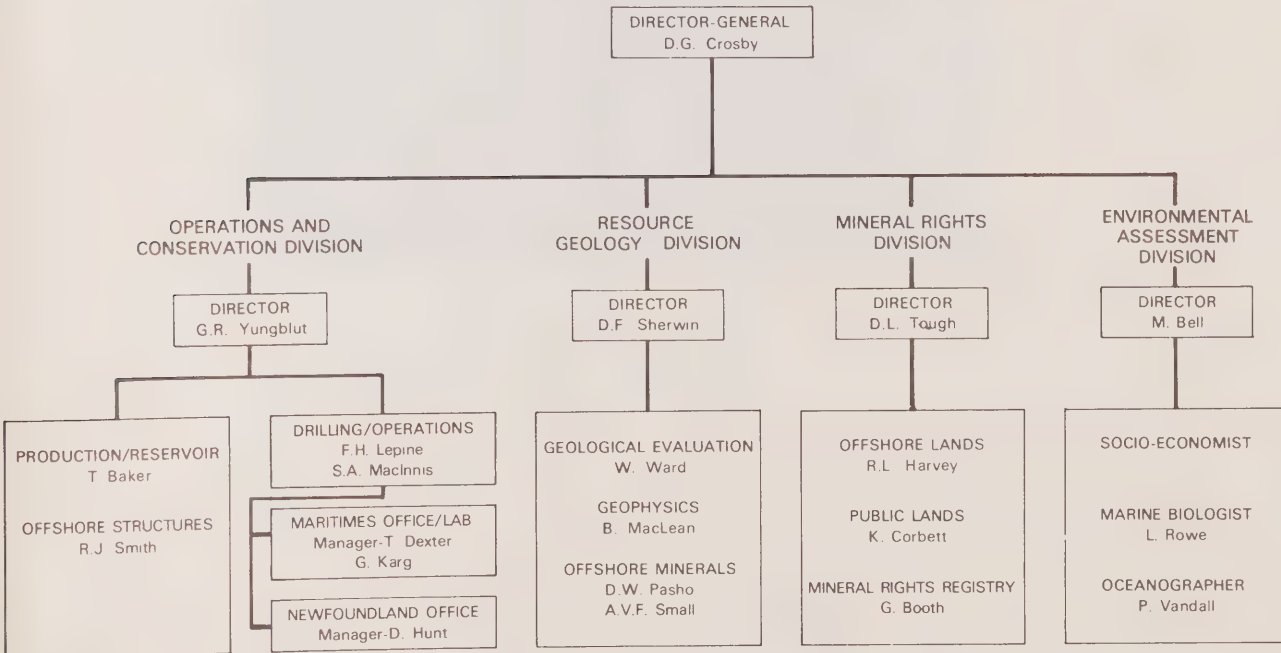
Name: D. Hunt
Telephone: (709) 737-2125
After Hours: (709) 753-3368

Available Publications:

There are a number of other complimentary Branch publications that provide information on the activities of the oil and gas industry off Canada's East and West Coasts and in Hudson Bay and Hudson Strait regions. These include "Offshore Report", issued quarterly; "Oil and Gas Report" and "Offshore Oil and Gas Lands" issued as a guide to current permit acreage; as well as "Resources Under the Sea", which provides more general information on offshore resources.

The publication, "Surveying Offshore Canada Lands for Mineral Resource Development" is available from the Canada Map Office, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa, K1A 0E9 at a cost of \$6.00 Canada, \$7.00 other countries. This report deals with the technical and legal aspects of surveying for mineral resource development in the Canadian Offshore.

DEPARTMENT OF ENERGY, MINES AND RESOURCES RESOURCE MANAGEMENT BRANCH





SEDCO 709

This semi-submersible rig will be utilized by ESSO Resources Canada Limited during the 1979 drilling season. Photo courtesy of Southeastern Commonwealth Drilling Ltd.

SECTION B

Other Federal Departments that must be notified of offshore mineral exploration and development operations.

DEPARTMENT OF TRANSPORT

Coast Guard Aids and Waterways

This agency requires at least 60 days' advance notice of the commencement of any proposed offshore program. This lead time is needed in the event that the location of the program warrants the issuance of a "Canadian Notice to Mariners". These national Notices may be subsequently copied into related foreign publications. Local "Notices to Shipping" advertising the program will also be issued as necessary.

Coast Guard Aids and Waterways may also specify the aids-to-navigation devices needed for the proposed program.

The Department of Transport has the duty to protect navigation with respect to works in navigable waters. A "work" includes any structure, pipe, pile or buoy used in connection with the exploration for, or development of, resources located in or under the water.

Coast Guard Aids and Waterways processes applications for approval or exemption under the Navigable Waters Protection Act and will answer inquiries in this regard.

The Department of Transport also administers the Canada Shipping Act, those parts of the Arctic Waters Pollution Prevention Act relating to ships navigating in shipping safety control zones, and regulations made pursuant to these Acts.

Communications should be directed to:

Director
Aids and Waterways Branch
Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: J.N. Ballinger
Phone: (613) 992-2234
Telex: 053-3128

In addition, there are a number of departmental officers who may be contacted in the field should the need arise. Their addresses are as follows:

Regional Director
Canadian Coast Guard
Department of Transport
P.O. Box 1300
St. John's, Newfoundland
A1C 5N5

Telex: 016-4530

Regional Director
Canadian Coast Guard
Department of Transport
P.O. Box 1013
Dartmouth, Nova Scotia
B2Y 3Z7

Telex: 019-21615

Regional Director
Canadian Coast Guard
Department of Transport
2 Place Quebec, Room 212
Quebec, Quebec
G1R 2B5

Telex: 051-3723
(This office handles Hudson Bay)

Regional Director
Canadian Coast Guard
Department of Transport
Box 10060 Pacific Centre
700 West Georgia Street
Vancouver, British Columbia
V7Y 1E1

Telex: 045-3235

District Managers of the Canadian Coast Guard are located in Victoria, and Prince Rupert, British Columbia; Hay River, North West Territories; Parry Sound and Prescott, Ontario; Montreal, Quebec; Saint John, New Brunswick; Charlottetown, Prince Edward Island; Dartmouth, Nova Scotia; and Goose Bay, Labrador.

DEPARTMENT OF THE ENVIRONMENT

Environmental Protection Service

Operators are required to provide this agency with 45 days' advance notice of any proposed offshore field program.

This is a service and liaison agency which implements protection programs to meet environmental quality objectives or resource protection requirements. EPS also undertakes a co-ordinating function with regard to other agencies within the Department of the Environment.

Written notices should be sent to the appropriate regional offices as follows:

Director-General, Atlantic Region
Environmental Protection Service
Department of the Environment
(Bank of Montreal Tower) 5151 George Street,
Halifax, Nova Scotia
B3J 1M5

Name: C.J. Edmonds
Phone: (902) 426-3593
Telex: 019-21565

Director-General, Pacific Region
Environmental Protection Service
Department of the Environment
Kapilano 100 - Park Royal
West Vancouver, British Columbia
V7T 1A2

Name: B.A. Heskin
Phone: (604) 666-1064
Telex: 045-4476

Regional Director, Northwest Region
Environmental Protection Service
Department of the Environment
9942-108 Street
Edmonton, Alberta
T5K 2J5

Name: J. Mar
Phone: (403) 425-4580
Telex: 037-2099
(This office handles Hudson Bay)

DEPARTMENT OF FISHERIES AND OCEANS

Fish Habitat Management Branch

This Branch must be contacted directly by the operator 90 days in advance if high explosives are to be used for offshore geophysical surveys. For further information please refer to page 15, Section C.

DEPARTMENT OF NATIONAL DEFENCE

Office of the Maritime Commander

The appropriate Office of Maritime Command should be given 45 days advance notice in

writing of any offshore field program. This should include specific details of the program such as the timeframe involved, geographic position, and vessel or vessels being utilized. If submersible diving operations are intended, this information should also be included.

Prior to the commencement of field work, an employee of the operator may have to confer with staff officers of Maritime Command on such matters as underwater defence cables, firing practices, exercises, naval operations and shipwreck positions in the area involved. Relevant information will be supplied to the operator on a need-to-know basis.

It can facilitate matters for an employee of the operator or permittee to have obtained security clearance prior to discussion of a proposed program with staff officers of Maritime Command. Security clearance for Industry personnel is obtained through the Resource Management Branch of the Department of Energy, Mines and Resources, and details of the procedures are given on page 41 in Part II.

Operations in the Atlantic, the Gulf of St. Lawrence, the Labrador Sea, Hudson Bay, and Arctic waters east of longitude 141° West, are handled by the office of:

Commander, Maritime Command
Department of National Defence
F.M.O., HMC Dockyard
Halifax, Nova Scotia
B3K 2X0

Maritime Command Operations Centre
Phone: (902) 426-4706
Telex: 019-21533

Operations off the West Coast are handled by the office of:

Commander, Maritime Forces Pacific
Department of National Defence
F.M.O.
Victoria, British Columbia
VOS 1B0

Maritime Forces Pacific Operations Centre
Phone: (604) 388-1597
Telex: 049-7410

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN
DEVELOPMENT

Northern Non-Renewable Resources Branch

This Branch administers mineral resources in the Yukon and Northwest Territories, the Beaufort Sea, inter-island water areas, Davis Strait and Baffin Bay.

Forty-five days' advance notice of commencement of exploration work in offshore areas administered by the Department of Indian Affairs and Northern Development must be filed with:

Northern Non-Renewable Resources Branch
Department of Indian Affairs and Northern Development
101-112 11th Avenue S.E.
Calgary, Alberta
T2G 0X5

Name: T. Stalinski
Phone: (403) 231-5631

Information and assistance may also be obtained from:

Director
Northern Non-Renewable Resources Branch
Department of Indian Affairs and Northern Development
Ottawa, Ontario
K1A 0H4

Name: H.W. Woodward
Phone: (819) 997-9339

or from the Branch's:

Chief
Oil and Gas Lands Division

Name: P. Sullivan
Phone: (819) 997-9741

or:

Head
Exploratory Operations Section
Oil and Gas Resources Evaluation Division

Name: S.A. Kanik
Phone: (819) 997-9444

or:

Chief
Oil and Gas Resources Evaluation Division

Name: Vacant
Phone: (819) 997-9669

or:

Acting Chief
Oil and Gas Engineering Division

Name: M.K. El-Defrawy
Phone: (819) 997-9909

Many maps dealing with northern resources activities, and information on the availability of reports and well materials submitted to this agency by Industry under the Canada Oil and Gas Land Regulations and subsequently released from confidential status may be obtained through the agency's offices in Ottawa, Calgary, Inuvik and Yellowknife.

DEPARTMENT OF INDUSTRY TRADE AND COMMERCE

Advisory Committee on Industrial Benefits (ACIB)

The ACIB is an interdepartmental advisory committee established to ensure that the long term industrial benefit to Canada is maximized when operators select sources of equipment and services required for activities on Canada lands. The Committee provides advice to the Departments of Energy, Mines and Resources and Industry, Trade and Commerce on the extent to which Canadians and Canadian firms should be participating in the supply of equipment and services to offshore projects.

For further information contact:

Advisory Committee on Industrial Benefits
from Natural Resource Development
Department of Industry, Trade and Commerce
235 Queen Street
Ottawa, Ontario
K1A 0H5

Name: G.E. Hughes-Adams
Phone: (613) 995-3201

SECTION C

Under certain circumstances notification must be given to other federal agencies concerned with the Offshore. This section outlines for prospective offshore operators the responsibilities of and specialized services provided by these agencies.

DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE

Transportation Industries Branch

A major objective of the Department of Industry, Trade and Commerce is to encourage Canadian participation in the development, manufacture and supply of equipment and techniques for exploration and development of Canada's offshore mineral resources. Activities include the provision of ship-building subsidies and financial assistance for research and development as well as analysis and guidance on the Canadian content of equipment and services utilized in offshore operations.

Inquiries should be directed to:

Chief
Ocean Industries Division
Transportation Industries Branch
Department of Industry, Trade and Commerce
Ottawa, Ontario
K1A 0H5

Name: M.J. Colpitts
Phone: (613) 995-3201

DEPARTMENT OF NATIONAL REVENUE

Customs and Excise

This agency must be contacted if vessels or equipment from abroad are to be used for proposed offshore programs carried out in Canadian waters.

The Port Administration Division administers that portion of the Canada Shipping Act relating to the coasting trade. A company importing ships or specialized plant and equipment for exploration work off Canada's seacoasts may obtain information, assistance and other contacts as may be necessary in Customs and Excise from:

Director-General
International Traffic Programs Division
Revenue Canada
Customs and Excise
Ottawa, Ontario
K1A 0L5

Name: E.D. Warren
Phone: (613) 992-0693

DEPARTMENT OF COMMUNICATIONS

The Department of Communications has certain requirements for licensing earth stations to be used in the course of offshore oil and gas exploration on the Canadian continental shelf.

National Telecommunications Branch

The National Telecommunications Branch is responsible for the development and implementation of policy to promote the orderly growth of telecommunications in Canada, the strengthening of telecommunications within and among all parts of Canada and the use of Canadian telecommunication facilities to the greatest possible extent. Operators of oil and gas exploration permits who wish to use satellite communication service should notify the Director-General, National Telecommunications Branch, 300 Slater Street, Ottawa, K1A 0C8, no less than six months before the service is required.

Telecommunication Regulatory Service

The responsibilities of this agency include the development of technical standards, the selection and co-ordination of radio frequencies, and the licensing of all classes of radio stations except broadcasting.

An operator contemplating the use of radio communications in his offshore activities should make application for licensing of any radio station in Canada or onboard any Canadian vessel involved at least six weeks before the proposed in-service date of the communication facility. Details as to the licensing requirements and the necessary application forms may be obtained from any of the following regional offices of Communications:

Chief of Operations
Atlantic Region
Terminal Plaza Building
1222 Main Street
Moncton, New Brunswick
E1C 8P9

Name: J.R.R. Valiquette
Phone: (506) 858-2397

Chief of Operations
Quebec Region
20th Floor
2085 Union Avenue
Montreal, Quebec
H3A 2C3

Name: L. Daigle
Phone: (514) 283-7046

Manager of Operations
Central Region
2300 One Lombard Place
Winnipeg, Manitoba
R3B 2Z8

Name: E.R. Shea
Phone: (204) 985-4395

Director of Operations
Pacific Region
Room 320
325 Granville Street
Vancouver 2, British Columbia
E1C 8P9

Name: D.T. Black
Phone: (604) 666-3398

The Quebec and Central regional offices split the regulatory responsibilities for Hudson Bay.

If need be, the following in Ottawa may be contacted for assistance:

Director-General
Telecommunication Regulatory Service
Department of Communications
Ottawa, Ontario
K1A 0C8

Name: J. de Mercado
Phone: (613) 996-2453

Advice in determining communication requirements and the necessary applications for licence may also be obtained from:

Director
Operations Branch
Telecommunication Regulatory Service
Department of Communications
Ottawa, Ontario
K1A 0C8

Name: M. Eric
Phone: (613) 992-9642

DEPARTMENT OF FISHERIES AND OCEANS

Fish Habitat Management Branch

If high explosives are to be used by an operator for a proposed seismic survey, then the respective Regional Director-General of Fisheries must be given advance notice of 90 days in case it should be decided that the presence of qualified fisheries observers is required.

Notification should be sent to the appropriate regional offices, Fisheries Management.

Recent amendments to the Fisheries Act include sections to protect sensitive areas in the marine environment. For information on fisheries requirements for these and other relevant sections of the Act contact one of the fisheries authorities listed below:

Director
Fish Habitat Management
Pacific and Fresh Water Fisheries
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: J.C. MacLeod
Phone: (613) 995-1818

Maritimes Region - (Nova Scotia, New Brunswick, Prince Edward Island)
Manager
Fisheries Environmental Co-ordination
Resource Branch
Department of Fisheries and Oceans
P.O. Box 550
Halifax, Nova Scotia
B3J 2S7

Phone: (902) 426-3929

Newfoundland Region
Section Head
Habitat Management
Research and Resource Services
Department of Fisheries and Oceans
P.O. Box 5667
St. John's, Newfoundland
A1C 5X1

Phone: (709) 737-4409
or: (709) 737-4485

Pacific Region - (British Columbia)
Chief, Habitat Protection
Department of Fisheries and Oceans
1090 West Pender Street
Vancouver, British Columbia
V6E 2P1

Phone: (604) 666-3282

Canadian Hydrographic Service

Operators may be liable for damage caused to underwater commercial cables. Every operator planning to undertake an offshore program is strongly urged to ascertain well in advance of the planned date of commencement the location of any commercial cables within the area involved.

If desired, relevant information supplied by the operator or permittee on the proposed program will be treated as confidential.

Requests for cable-lay information, accompanied by a plan showing the specific work area, should be sent to:

Canadian Hydrographic Service
Ocean and Aquatic Sciences
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: J. Bruce
Phone: (613) 995-4651

DEPARTMENT OF THE ENVIRONMENT

Canadian Wildlife Directorate

This agency discharges federal responsibilities in regard to wildlife. Information, such as the locations of migratory bird sanctuaries along the seacoasts, may be obtained from:

Director-General
Canadian Wildlife Service
Department of the Environment
Ottawa, Ontario
K1A 0H3

Name: A. Loughrey
Phone: (613) 997-1301

Regional Director
Atlantic Region
Canadian Wildlife Service
Department of the Environment
P.O. Box 1590
Sackville, New Brunswick
E0A 3C0

Name: J. Inder
Phone: (506) 536-3025

Regional Director
Pacific and Yukon Regions
P.O. Box 340
Delta, British Columbia
V4K 3Y3

Name: G. Staines
Phone: (604) 946-8546

DEPARTMENT OF MANPOWER AND IMMIGRATION

Canada Immigration Division

This agency is concerned with the entry of all persons into Canada or Canadian waters and the employment of personnel therein other than citizens or permanent residents of Canada. Operators anticipating the employment of personnel therein must have a prior clearance and a request for such clearance should be made at least 60 days in advance of operations. Requests for information or clearance should be directed to:

Director-General
Recruitment and Selection Branch
Canada Immigration Division
Department of Manpower and Immigration
Ottawa, Ontario
K1A 0J9

Name: W.K. Bell
Phone: (613) 996-3103

CANADIAN COAST GUARD
DEPARTMENT OF TRANSPORT

The Canadian Coast Guard, formerly known as Marine Services, and headed by the Commissioner, is a component of the Canadian Marine Transportation Administration. The objectives of the Canadian Coast Guard are: to support waterborne commerce by ensuring the safe and efficient movement of marine traffic; to provide services that promote the safety of life and property in the marine environment; to support the marine-related objectives of other governmental departments and to provide marine emergency services and oil spill response capabilities.

These objectives are carried out through a headquarters organization and five regional directorates. Further information and assistance may be obtained from:

Commissioner
Canadian Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: W.A. O'Neil
Phone: (613) 992-3438

The following are Branches of direct concern:

Aids and Waterways Branch

This Branch develops and recommends policies for the provision of aids to marine navigation and legislation and regulations for the control of marine traffic, reviews and approves construction plans under the Navigable Waters Protection Act and directs the development of commercial navigable waterways. Information pertaining to the safety of navigation is disseminated by means of broadcast and printed Notices to Shipping and weekly Notices to Mariners. Information may be obtained by contacting:

Director
Aids and Waterways Branch
Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: J.N. Ballinger
Phone: (613) 992-2234

Ship Safety Branch

The Ship Safety Branch is concerned with safety of life and property at sea and the protection of the environment from ship-generated pollution.

The Branch responsibilities include the inspection and certification of vessels under the Canada Shipping Act and the Arctic Waters Pollution Prevention Act, the prevention of oil pollution by ships, registration of shipping, safe working practices, methods of stowing cargo, marine personnel and navigational safety matters, and regulations concerning the design, construction, maintenance and operation of air cushion vehicles.

In the case of an exploration or exploitation vessel having a derrick extending more than 60 metres above the water, the Regional Manager, Ship Safety should be notified prior to the commencement of a program and of any anticipated movement of the vessel in Canadian waters. He will then initiate action to inform low flying aircraft. Communications should be directed to the Regional Manager, Ship Safety for the appropriate region. Addresses and telex numbers are given on page 10.

Further information and assistance concerning the other responsibilities of this agency may be obtained from:

Director
Ship Safety Branch
Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: D.L. Findlay
Phone: (613) 992-8892

Fleet Systems Branch

The Fleet Systems Branch has major responsibilities in two areas of concern to offshore operators: support of shipping in icebound waters and marine search and rescue.

If operations are being contemplated for areas where ice may be a problem and where icebreaker or other support may be desired, the Director of Fleet Systems should be consulted as far in advance as possible. This is particularly important in the case

of Arctic or Hudson Bay operations where the planning of icebreaker disposition is usually done six months in advance of the season. Information may be obtained by writing to:

Director
Fleet Systems Branch
Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Phone: (613) 992-4209

Pilotage Branch

Information and assistance regarding pilotage matters may be obtained through:

Director
Pilotage Branch
Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: P. Godbout
Phone: (613) 992-4032

The Pilotage Authorities are responsible for providing a safe and efficient pilotage service to national and international shipping within their respective areas. Requests for information regarding pilotage services available off the East and West coast should be addressed to the appropriate Regional Pilotage Authority.

Atlantic Pilotage Authority
Department of Transport
Bank of Montreal Tower
5151 George Street
Halifax, Nova Scotia
B3J 1M5

Name: A.D. Latter
Phone: (902) 426-2550

Pacific Pilotage Authority
Department of Transport
605-1200 West Pender Street
Vancouver, British Columbia
V6E 2T9

Name: P.V.O. Evans
Phone: (604) 666-6771

Marine Emergencies

This agency is responsible for contingency plans and for the development, testing,

acquisition and allocation of certain pollution cleanup equipment. It provides co-ordination and assistance when a federal response is made to combat a spill of oil or toxic materials into the marine environment. The response is made under the National Marine Emergency Plan or, in the case of international boundary waters, the appropriate joint international plan.

Cleanup equipment has been placed at strategic locations throughout the country to fulfill this responsibility and on-scene commanders are designated for each of the areas concerned.

While the Coast Guard has no legislative mandate for seabed activities, it is prepared to assist with personnel and resources, upon request, and on a cost-recovery basis in case of emergencies resulting from seabed activities. The Coast Guard's Emergency Structure has officers in Ottawa as well as five regions which may make available ships, helicopters and pollution countermeasures equipment.

Further information and assistance may be obtained from:

Chief, Emergencies
Canadian Coast Guard
Department of Transport
Ottawa, Ontario
K1A 0N7

Name: M.S. Greenham
Phone: (613) 992-9743
or: (613) 992-9210

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Surveys and Mapping Branch

This agency develops the technical specifications for positioning surveys required to locate offshore wells and related facilities. Survey plans for exploratory wells, submitted through the Resource Management Branch, are subject to review by the agency. Plans of legal survey, a requirement for development wells, must be made in accordance with the instructions of the Surveyor General and, subsequently, must be approved by him.

Specifications for offshore well surveys, and general inquiries concerning offshore surveying, may be directed to:

Surveyor General
Legal Surveys Division
Surveys and Mapping Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E9

Name: W.V. Blackie
Phone: (613) 995-4674

Information concerning coastal control
surveys may be obtained from:

Director and Dominion Geodesist
Geodetic Survey Division
Surveys and Mapping Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E9

Name: L.J. O'Brien
Phone: (613) 995-4282

When requesting control survey data, the
area involved should be designated by
latitude and longitude. In the case of a
large area, it is important to state
priorities within the area to facilitate
processing.

CANADIAN TRANSPORT COMMISSION

Water Transport Committee

A foreign vessel wishing to engage in off-
shore exploration work in Canadian waters
must first obtain permission from the
Department of National Revenue, Customs and
Excise. Upon receipt of an application for
permission to undertake exploration work,
Headquarters Operations Customs request the
Water Transport Committee of the Canadian
Transport Commission to ascertain whether a
suitable Canadian-flag vessel is available
to do this work. Only in cases where the
Water Transport Committee advises that no
suitable Canadian vessel is available do

Headquarters Operations Customs grant
permission to the foreign vessel.

For further information contact:

Chief
Coastal Shipping Division
Water Transport Committee
Canadian Transport Commission
Ottawa, Ontario
K1A 0N9

Name: A. Coté
Phone: (819) 997-1213

NATIONAL RESEARCH COUNCIL

Space Research Facilities Branch

Operators planning offshore activities in
the Hudson Bay region must inform the
following agency well in advance since
rockets are fired on a year-round basis from
the Churchill Research Range.

Head, Operations
Space Research Facilities Branch
National Research Council of Canada
Ottawa, Ontario
K1A 0R6

Name: J.A. Tarzwell
Phone: (613) 993-9385

In addition, operators active in the Hudson
Bay region are required to co-ordinate their
field activities with:

Officer in Charge
Churchill Research Range
National Research Council of Canada
Churchill, Manitoba
ROB 0E0

Name: D.S. Gray
Phone: (204) 856-2250



Iceberg 1

Example of Iceberg: 260 foot high iceberg in Baffin Bay, 1978. Photo courtesy of: R. Belanger, Bedford Institute of Oceanography.

SECTION D

This section provides information concerning those agencies in the federal government, other than the Resource Management Branch, that are in a position to provide specialized scientific information that may be of benefit to offshore operators.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Geological Survey of Canada

The Geological Survey of Canada carries out systematic geological and geophysical surveys in the sedimentary basins of Canada, including studies of well cuttings and cores. These sedimentary areas include parts of the regions offshore from the East, West and Northern Coasts, the Arctic Islands and Hudson Bay.

Research units located in Dartmouth, Calgary, Vancouver and Patricia Bay are concerned with studies of marine, surficial and subsurface geology, and geophysics. The units at Dartmouth and Calgary conduct micropaleontological, palynological, sedimentological and geochemical studies. The unit at Vancouver conducts geological investigations in the Cordilleran orogen, and the marine geology unit at Patricia Bay is responsible for carrying out geological and geophysical studies of the Pacific Offshore area.

Requests for general information, publications and the like should be made to:

Director-General
Geological Survey of Canada
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E8

Name: D.J. McLaren
Phone: (613) 995-4208

Requests for information pertaining to the Atlantic continental margin and Hudson Bay should be made to:

Director
Atlantic Geoscience Centre
Department of Energy, Mines and Resources
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Name: M.J. Keen
Phone: (902) 426-2367

Requests for information pertaining to the Arctic continental margin should be made to:

Director
Institute of Sedimentary and Petroleum Geology
Geological Survey of Canada
Department of Energy, Mines and Resources
3303-33rd Street N.W.
Calgary, Alberta
T2L 2A7

Name: D.F. Stott
Phone: (403) 284-0110

Requests for information pertaining to the Pacific continental margin should be made to:

Geological Survey of Canada
Department of Energy, Mines and Resources
8th Floor, Sun Building
Vancouver, British Columbia
V6B 1R8

Name: H. Gabrielse
Phone: (604) 666-1529

or:

Pacific Geoscience Center
Department of Energy, Mines and Resources
Institute of Ocean Sciences, Patricia Bay
P.O. Box 6000
Sidney, British Columbia
V8L 4B2

Name: D.L. Tiffin
Phone: (604) 656-8423

Earth Physics Branch

The Earth Physics Branch is involved in off-shore geophysical studies including gravity surveys, heat flow surveys, crustal seismic surveys, earthquake seismology and airborne three-component magnetometer surveys.

Requests for general information, publications and enquiries with regard to the work of this agency should be made to:

Director-General
Earth Physics Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0Y3

Name: K. Whitham
Phone: (613) 995-5464

Polar Continental Shelf Project

The Polar Continental Shelf Project is a continuing, multi-disciplinary investigation of the continental shelf fringing the Arctic coast of Canada, together with adjacent parts of the Arctic Ocean basin, the islands of the Canadian Arctic Archipelago and the waters between them, and other areas that may be of special interest.

Enquiries regarding surveys and scientific studies in Arctic areas may be directed to:

Director
Polar Continental Shelf Project
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Name: G.D. Hobson
Phone: (613) 996-3388

Surveys and Mapping Branch

Topographic maps, indexes, aeronautical charts, atlases and numerous other map publications of Canada may be obtained from:

Canada Map Office
Surveys and Mapping Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E9

Name: P.K. Andrews
Phone: (613) 998-3865
Telex: 053-4328

Air photographs covering all portions of Canada may be obtained from:

National Air Photo Library
Surveys and Mapping Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E9

Name: N. Ferguson
Phone: (613) 995-4560

DEPARTMENT OF FISHERIES AND OCEANS

Ocean and Aquatic Sciences

Marine science information concerning bathymetry, tides, physical oceanography and charts of Canadian coastal waters is available from:

Assistant Deputy Minister
Ocean and Aquatic Sciences
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: G.N. Ewing
Phone: (613) 995-2197

Canadian Hydrographic Service

Hydrographic information may be obtained from:

Dominion Hydrographer
Canadian Hydrographic Service
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: S.B. MacPhee
Phone: (613) 995-4413

Information on hydrographic surveys off the West Coast and in the western Arctic regions may also be obtained from:

Regional Hydrographer
Canadian Hydrographic Service
Department of Fisheries and Oceans
Institute of Ocean Sciences, Patricia Bay
P.O. Box 6000
Sidney, British Columbia
V8L 4B2

Name: M. Bolton
Phone: (604) 656-8347

Information on hydrographic surveys in the eastern Arctic and off Canada's East Coast may be obtained from:

Regional Hydrographer
Canadian Hydrographic Service
Department of Fisheries and Oceans
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Name: T.B. Smith (Acting)
Phone: (902) 426-3497

The Canadian Hydrographic Service also provides information concerning authorized chart dealers at major seaports who stock charts and publications in demand in their districts.

Oceanography Branch

Information on waves, tides, water levels and oceanographic data may be obtained from:

Director-General
Marine Sciences and Information Directorate
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: N.J. Campbell
Phone: (613) 995-2039

Bedford Institute of Oceanography

Research and survey operations are conducted from two laboratories, the Atlantic Oceanographic Laboratory and the Marine Ecology Laboratory, both located at the Bedford Institute of Oceanography. The Atlantic Oceanographic Laboratory carries out research in chemical and physical oceanography and undertakes the development of new oceanographic equipment. It is also responsible for hydrographic surveys off Canada's East Coast and in the eastern Canadian Arctic. Research in the Marine Ecology Laboratory is aimed at studying the biological processes underlying fisheries production and their relationships to the physical environment. In addition, the majority of the services required to carry out the scientific research and surveys of the Bedford Institute of Oceanography, such as ships and engineering services, are organized in a central group known as Institute Facilities, which is also part of Ocean and Aquatic Sciences, Atlantic Region. Requests for information pertaining to the work of the Institute should be made to:

Director-General
Ocean and Aquatic Sciences, Atlantic Region
Department of Fisheries and Oceans
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Name: C.R. Mann
Phone: (902) 426-3492

The Institute of Ocean Sciences

The Institute of Ocean Sciences, Patricia Bay, performs on the West Coast of Canada functions analogous to those of the Bedford Institute of Oceanography on the East Coast.

In addition to its oceanographic and hydrographic expertise, IOS has developed a high degree of capability in working in the ice covered waters of the high Arctic and Beaufort Sea.

Requests for information may be obtained from:

Director-General
Institute of Ocean Sciences, Patricia Bay
P.O. Box 6000
Sidney, British Columbia
V8L 4B2

Name: R.W. Stewart
Phone: (604) 656-8215

Fisheries Resource Services

The Fisheries Resource Services has three fisheries research stations on the East Coast of Canada, two on the West Coast and operates vessels which carry out regular cruises. The Arctic Biological Station has information pertinent to Hudson Bay. Information on fisheries research work may be obtained from:

A/Director
Fisheries Research Branch
Department of Fisheries and Oceans
Ottawa, Ontario
K1A 0E6

Name: M. Mercer
Phone: (613) 995-2171

Specific regional information is available from:

Director-General
Fisheries and Marine Service
Department of Fisheries and Oceans
P.O. Box 5667
St. John's, Newfoundland
A1C 5X1

Name: L.J. Cowley
Phone: (709) 737-4409

Director-General
Fisheries Management
Department of Fisheries and Oceans
P.O. Box 550
Halifax, Nova Scotia
B3J 2S7

Name: R.A. Crouter
Phone: (902) 426-2581

Director-General
Fisheries Management
Department of Fisheries and Oceans
1090 West Pender Street
Vancouver, British Columbia
V6E 2P1

Name: W.E. Johnson
Phone: (604) 544-6097

DEPARTMENT OF THE ENVIRONMENT

Atmospheric Environment Service

Requests for information on meteorological and sea-ice data, climatology, weather forecasting, meteorological instruments and research may be directed to:

Assistant Deputy Minister
Atmospheric Environment Service
Department of the Environment
4905 Dufferin Street
Downsview, Ontario
M3H 5T4

Name: A.E. Collin
Phone: (416) 667-4760
or: (613) 997-1588

Where requests are of a regional nature concerning the West Coast, Hudson Bay and the East Coast they may be directed to the respective regional offices as follows:

Director, Pacific Region
Atmospheric Environment Service
739 West Hastings Street
Vancouver, British Columbia
V6C 1A1

Name: J.R. Mathieson
Phone: (604) 666-1901

Director, Central Region
Atmospheric Environment Service
1000-266 Graham Avenue
Winnipeg, Manitoba
R3C 3V4

Name: J.J. Labelle
Phone: (204) 949-4380

Director, Atlantic Region
Atmospheric Environment Service
P.O. Box 5000
Bedford, Nova Scotia
BON 1B0

Name: H.B. Kruger
Phone: (902) 835-9328



Iceberg 2

Canadian Survey Ship Hudson operating in Baffin Bay near Scott Inlet August 1978. Photo courtesy of: R. Belanger, Bedford Institute of Oceanography.

PART II

SUPPLEMENTAL INFORMATION FOR OFFSHORE OPERATORS

PART II

SECTION A

LICENCE, PERMIT AND LEASE ADMINISTRATION

Canada's Mineral Rights Regime

The regulations under which the Department makes offshore oil and gas rights available for development are the Canada Oil and Gas Land Regulations, which apply to such rights in the Territories as well. They were promulgated under the Public Lands Grants Act and the Territorial Lands Act, and it is the former Act that gives statutory authority as concerns the Offshore.

Before undertaking exploration work of any kind in the Offshore, a party must first acquire an exploratory licence. A licence is non-exclusive and is renewable on an annual basis. A licence is necessary whether or not the party is already a permittee or lessee. It is in effect a "hunting licence", since with it a party may apply to carry out exploration work, short of drilling a well, in any region of the Offshore not restricted in some fashion, including areas held under permit by other parties. The concept here is to allow work throughout the Canadian Offshore and at the same time maintain control over all activities through operational and reporting requirements.

The second entity in the Canadian system is the oil and gas exploration permit. As described in more detail below, amendments to the Regulations have recently been promulgated, and no new permits will be issued. Existing permits will of course continue in force until they reach their statutory expiry date.

A permit, in contrast to a licence, does involve certain exclusive rights. An authorization to drill a well within a permit area can normally be obtained only by the permittee, and only the permittee has the option of selecting oil and gas leases from a permit area. A permit normally covers a grid area or half-grid. A grid area south of latitude 70° North is delimited by lines of latitude 10 minutes apart and lines of longitude 15 minutes apart. North of latitude 70° North, a grid area is delimited by

lines of latitude 10 minutes apart and lines of longitude 30 minutes apart. Grid areas vary in size due to convergence of meridians; for example they comprise less than 64,000 acres off the northern tip of Labrador and more than 95,000 acres south of Nova Scotia.

The emphasis at the permit stage is on exploration work, the discovery of oil and gas deposits. Offshore permits are valid for six years, with six renewals each of one year. The permittee must make a guaranty deposit at the time of application for a permit to the full amount of the work requirements for the first period as a surety that the work will be carried out. Similarly, guaranty deposits must be made prior to each succeeding work period. Permit work requirements increase progressively so as to reflect the progressive increase in expenditures necessary to effectively evaluate an area, from relatively inexpensive reconnaissance work, through detailed geophysical surveys, to high-cost exploratory drilling operations. Guaranty deposits are returned upon receipt of satisfactory evidence that appropriate work has been performed - they are subject to forfeiture otherwise. Applications for return of guaranty deposits must be supported by appropriate reports and certified statements of expenditures.

The third entity in the Canadian system is the oil and gas lease. Commercial production cannot be undertaken while acreage is still in permit form, it must first be converted to lease. It is at this stage that the emphasis is placed on direct revenues, primarily through royalties on production and annual rentals. A permittee may acquire leases covering up to half the area of a permit, with that portion not converted to lease reverting to the Crown.

There are certain "Canadian participation provisions" that apply to the lease stage. In accordance with these provisions, for example, any individual wishing to obtain a

lease must be a Canadian citizen, and any company wishing to obtain a lease must be incorporated in Canada. The Regulations stipulate further that, in essence, the Minister must be satisfied with the opportunity Canadians have for participating in the financing and ownership of corporations involved in applications for leases.

On May 19, 1976 the Minister of Energy, Mines and Resources made public a "Statement of Policy on a Proposed Petroleum and National Gas Act and New Canada Oil and Gas Land Regulations." This policy statement indicated that a new Act, which would impact on contractual obligations under the existing regulatory regime, would be brought before Parliament in order to effect a number of changes designed to accelerate oil and gas activity in Canada's frontier regions.

Those changes in the regulatory regime for oil and gas that could be effected without parliamentary approval were implemented by Orders in Council PC 1977-2155 of July 28, 1977 (effective August 3, 1977) and PC 1977-3160 of November 10, 1977 (effective November 14, 1977).

Following are the significant changes implemented by these new amendments:

1. Replacement of the former exploration permit by a new type of grant called an Exploration Agreement. An Exploration Agreement may be issued by public tender for an area larger than one grid area (10' longitude X 15' latitude) and is subject to such terms and conditions as the Minister may determine. In contrast, the former exploration permit was issued for a half or whole grid area and was subject to stipulated levels of deposit requirements escalating over its 9-12 year life from 5¢ per acre to 50¢ per acre;
2. Amendment of the provisions of the Regulations relating to special renewals to provide for the issuance of Special Renewal Permits (SRPs) to replace exploration permits that have reached the end of their statutory term. An SRP will be granted by the Minister subject to such terms and conditions as he determines. The amendments also provide Petro-Canada with an opportunity, where Canadian ownership in the prospective SRP is 35% or less, to acquire up to a 25% working interest, provided no significant discovery has been made on the area involved;

3. Provision of a one-year preferential right for Petro-Canada to select up to 25% of land not under permit or lease (called Crown Reserves) as of August 31, 1977, as well as the right, over the subsequent seven years, of acquiring 25% of lands returned to the Crown.

As regards the legislation announced in the 1976 Policy Statement, a Bill to enact a Canada Oil and Gas Act was introduced for First Reading in Parliament on December 20, 1977. In addition to the measures announced in the policy statement, this Bill included provisions designed to make an operator liable for loss or damage caused by any unlawful discharge, emission or escape of oil or gas. The proposed Act also provided for establishment of Environmental Studies Revolving Funds to which holders of federal oil and gas rights would contribute and which would be used to finance environmental studies relating to oil and gas exploration. This bill was not dealt with during the Session and consequently died when Parliament was prorogued in mid-1978. A revised draft of a proposed Canada Oil and Gas Act is being prepared for submission to Parliament at such time as the Government determines.

Guaranty Deposits - Promissory Notes

Promissory notes acceptable to the Chief may be used to meet the deposit requirements of oil and gas permits issued under the Canada Oil and Gas Land Regulations and of mineral claims issued under the Canada Mining Regulations. The procedures outlined below are designed to deal with most cases. Applications for assistance in dealing with special cases should be made to the Resource Management Branch, Department of Energy, Mines and Resources.

Promissory notes should be issued in amounts equal to the specific deposit requirements involved. All holdings to be covered by any one promissory note must have the same anniversary date and maturity or nearly so.

Where work bonus bids are involved a separate promissory note must be submitted in respect of each bid.

To be acceptable, a promissory note must be made payable on demand to the Receiver General of Canada, approved for issue by a Canadian chartered bank, bear the corporate seal of the issuing company, and be guaranteed by a letter from the bank approving the note.

The bank letter of guaranty should contain statements to the effect that:

- on acceptance of the promissory note as a guaranty deposit, the Receiver General has the prerogative, if and when the note is presented for payment, to have the note endorsed on behalf of the Receiver General of Canada negating his liability; and
- the note is made payable at the main Ottawa branch of the bank involved.

The term of the bank letter of guaranty must cover the deposit period and the grace period at the end of the work period involved, plus an additional 60 days in which to process the note in the event it has to be cashed. The expiry date of a letter of guaranty must, therefore, be no less than 150 days after the anniversary date in the case of oil and gas permits and 60 days in the case of mineral claims. Letters of guaranty may be issued to cover individual promissory notes, or they may be issued to cover all the notes submitted by a company for a specific period of time.

Where a permit is held jointly by more than one individual or company, and where one of the individuals or companies posts deposits on behalf of one or more of the registered holders covering all or part of the guaranty deposit requirements, the deposits will be used to satisfy the full liability of the permittees concerned in the event of default or violation under the Canada Oil and Gas Land Regulations resulting in the forfeiture of the guaranty deposits. A formally executed letter acknowledging such liability is required.

Where a registered operator who does not have a registered interest in the permits wishes to place deposits on behalf of the registered permittees, his deposits will not be accepted unless he has first submitted a formally executed letter acknowledging his liability and consenting to the use of the deposits to satisfy the full liability of the permittees concerned in the event of default or violation under the Canada Oil and Gas Land Regulations resulting in the forfeiture of the guaranty deposits.

Guaranty Deposits - Government Bonds

Bonds guaranteed by the Government of Canada to fulfill guaranty deposits set out in the Canada Oil and Gas Regulations are accepted by the Department of Energy, Mines and

Resources at market value only. Permittees depositing such bonds in accordance with the Regulations will be required to maintain these deposits at a market value not less than the deposit requirements set out in the Regulations. With respect to deposits made pursuant to the provisions of the Canada Mining Regulations, bonds guaranteed by a province are also acceptable under the conditions set forth above respecting deposits made pursuant to the Canada Oil and Gas Land Regulations.

Where matured bond coupons are considered by the Chief to be surplus to the guaranty deposit requirements of the period concerned, they may be returned to the depositor on request.

Carry Forward of Under-expenditures

A notice requesting the carry forward of under-expenditures into the next period must, in order to meet the requirements of the Regulations, be submitted prior to the end of the current period. Such notice must include the reasons for failure to make the expenditures and must express the permittee's intention to undertake expenditures during the next period in an amount equal to the aggregate of the under-expenditure plus the work requirement of the next period.

Appointment of Operator

Where there are joint registered permittees, it is required that one person be appointed the operator for the permits. Such appointments must either bear the corporate seal of all permittees involved or be formally executed by persons for whom a Power of Attorney has been placed with the Resource Management Branch. The use of this procedure acknowledges the assignment by the permittees of their authority and responsibilities to the operator, as well as the acceptance of such authority and responsibilities by the operator.

When an operatorship is to be ended, a letter of notification of termination must be submitted in the same manner in which the appointment was made. If the permits continue to be jointly held, the appointment of a replacement operator must be made at the same time.

Where a Notice of Surrender is submitted by an operator, such Notice must be formally confirmed by all the registered permittee(s) involved.

Confirmation of Accounts

Confirmation by the Resource Management Branch of such confidential information as the amount and type of guaranty deposits held in permit accounts, the amount of approved work credits, and the amount of outstanding work obligations, cannot be provided except to the registered permittee or to a person specifically authorized by the permittee to receive such information.

Transfer of Permits

Interests in Canada Oil and Gas Permits may be unconditionally transferred in whole or in part to qualified holders upon approval by the Chief and in accordance with the requirements set out in the Canada Oil and Gas Land Regulations.

No transfer of an oil and gas permit or lease shall pass any interest in a permit or lease until the transfer is registered in accordance with the Regulations, which registration must be approved by the Chief.

Only permits in good standing may be transferred. All transferees must meet the eligibility requirements of a permittee as specified in the Regulations. The transfer document must include the incorporation details, the address for service of each transferee and be executed under corporate seal of each company or be accompanied by an affidavit of execution. Where a transfer is being made to joint transferees the undivided interest to be held by each permittee must be specified.

If there is more than one transferee, an operator must be appointed under joint corporate seals and such operator must formally accept the liability of operatorship.

Transfer fees of \$25.00 per permit for each transfer must accompany the request, the cheque to be made payable to the Receiver General of Canada.

Cash or bonds being held by the Department of Energy, Mines and Resources as guaranty deposits against work requirements may be transferred with the permits, if so specified in the transfer document. Promissory notes on deposit are not transferable unless the depositor continues to hold a registered interest in the permits or is appointed as operator. If deposits are not transferred, the transferee(s) or the appointed operator must submit replacement deposits in sufficient amount to maintain

the permits in good standing to the end of the current period. These deposits must be received before the transfer can be registered.

The relevant permit documents must accompany the transfer request for endorsement of the transfer registration.

Confirmation of Ownership

Confirmation of the present and past registered ownership of permits, agreements and oil and gas leases may be obtained on request from the office of the Director, Mineral Rights Division. Examination of relevant public records and documents may be made during normal business hours at the Branch offices, 13th floor, 580 Booth Street, Ottawa.

Statements of Expenditure

Information on the preparation of audited statements of expenditure is obtainable from the office of the Director, Mineral Rights Division.

Geophysical Processing and Interpretation Costs

Expenditures incurred in computer processing and the interpretation of geophysical data acquired in the course of exploration activities involving Canada lands will not be considered eligible for approval as allowable expenditures unless such processing and interpretation has been carried out in Canada.

An operator submitting a claim pursuant to the Canada Oil and Gas Land Regulations for allowable expenditures involving geophysical operations undertaken on Canada Lands should identify on his statement of expenditure the name of the company or companies involved together with the location of: (a) the computer facilities used to process the geophysical data; and (b) the offices where the geophysical data was interpreted. Expenditures incurred for computer processing should be separately identified and not included as part of the costs incurred for interpretation.

Geophysical data processed on board non-Canadian seismic ships will be considered to be work undertaken outside Canada and thus not eligible for approval as allowable expenditures.

CANADA OIL AND GAS DRILLING REGULATIONS

All drilling on Canada Lands is subject to the Canada Oil and Gas Drilling Regulations which were promulgated January 18, 1979 under the Oil and Gas Production and Conservation Act. These Regulations specify the approvals required; the minimum standards for equipment on drilling rigs and drilling units; the information required to be submitted with an application for approval

of a drilling program and for an authority to drill a well, including the surveying, positioning, diving, casing and blowout preventor requirements as well as the well evaluation and well completion procedures; and the information required on a daily and weekly basis during the course of a drilling operation.

Copies of these and other regulations may be obtained from the address given under the title Selected Publications on page 42 .

APPROVAL OF DRILLING ACTIVITIES



RESOURCE MANAGEMENT BRANCH
OPERATIONS AND CONSERVATION DIVISION
OFFSHORE PROGRAM NOTICE

This Notice is submitted in compliance with Section 52 of the "Canada Oil and Gas Land Regulations"

GENERAL DATA

Exploratory Licence No: Held by:
Permits or Leases with group nos:
.....
Off-permit or off-lease areas involved:
.....
Permits to which expenditures are to be applied:
.....
Estimated Costs: Contract or Purchase : On-Permit Off-Permit
(Re) Processing & (Re) Interpretation : On-Permit Off-Permit

OPERATIONAL DATA

Estimated dates of program: Commencement: Completion:
Geographical Area
Type of work (Check and provide details: Exclusive ☐ Non-Exclusive ☐* Purchase ☐ Data Trade ☐
.....
Energy Source (if applicable): Estimated Kilometres:
Equipment; number of personnel employed; name of vessel including registry (use reverse side of form if required):
.....
Prime Contractor: Phone Number:
Address:
(Re)Processing and (re)interpretation to be done by:
Company: Phone Number:
Address:
If field work involved, I confirm that the requisite notice has been provided to other Federal agencies concerned.**
Person(s) responsible for reporting to the Resource Management and Conservation Branch on a weekly basis:
Name & Company: Phone Number:
Residence:
Signed: Title:
Date: Company:

*Please quote operator's original project number for cross-reference and provide an approximate purchase date

**The requirements and services of the Federal agencies concerned are outlined in the publication "Offshore Exploration."

APPROVAL

Signed:
Operations and Conservation Division
File:
Please quote on all correspondence



RESOURCE MANAGEMENT BRANCH

DRILLING PROGRAM APPROVAL

APPLICATION

.....
(Name of Operator)

hereby applies for approval of a proposed drilling program under Section 7 of the Canada Oil and Gas Drilling Regulations using the equipment and procedures described in the full application for Drilling Program Approval dated It is understood that under Section 13 of the Regulations changes in equipment or procedures require the approval of the Chief in order that this approval is valid.

Signed Place

Title Date 19

APPROVAL

The operator named above is hereby authorized under Section 11 of the Regulations to conduct a drilling program using the drilling rig or drilling unit

.....
in the region of for a period

of months commencing 19 subject to compliance with the Canada Oil and Gas Drilling Regulations.

Signed:
Chief Conservation Officer

Date:
.....



RESOURCE MANAGEMENT BRANCH

AUTHORITY TO DRILL A WELL

APPLICATION

This application is submitted in compliance with Section 82 of the Canada Oil and Gas Drilling Regulations. When approved under Section 83 of the Regulations, it is the requisite authority for the commencement of drilling operations.

Well Name in Full:

Operator: Drilling Program No:

Contractor: Permit or Lease No:

Drilling Rig or Unit: Estimated Well Cost:

Location-Unit: Section: Grid Area:

Coordinates: Lat.: Long.:

Area: Field/Pool:

Elevation-RT/KB: (ASL) Seafloor: (BRT)

Approx Spud Date: Estimated Days on Location:

Anticipated Total Depth: Target Horizon(s):

EVALUATION PROGRAM:

Ten — metre sample intervals

Five — metre sample intervals

Canned sample intervals

Conventional cores at

Logs and Tests

CASING AND CEMENTING PROGRAM:

O.D.: Weight: Grade: Setting Depth Below Seafloor: Cementing Program (Volumes):

.....

.....

.....

.....

B.O.P. Equipment

.....

.....

Other Information

.....

.....

Signed: Title

Date Company

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Signed:
Operations and Conservation Division

File



WELL STATUS

Suspended ☐

Completed ☐

Abandoned ☐

RESOURCE MANAGEMENT BRANCH

WELL TERMINATION

This record of well suspension, completion or abandonment is submitted in triplicate in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Area:
Grid Area: Field/Pool:
Permit or Lease No.: Elevations-RT/KB: (ASL) Seafloor: (BRT)
Final Coordinates: Lat. Long.
Drilling Unit: Date Spudded:
Date Rig Released: Total Depth:

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
.....
.....
.....
.....

PRINCIPAL POROUS INTERVALS

Interval:	Age/Name:	Type of Fluid in Zone:
.....
.....
.....
.....

Reason for suspension, if applicable,

PLUGGING PROGRAM

Approval of the following program was obtained by (person) of
(company) from (person) in the
Operations and Conservation Division by means of at hrs. on 19 ..
Plug No.: Interval: Type of Plug: Cement and Additives: Felt?

CERTIFICATION

I certify that the suspension, completion or abandonment program was carried out in accordance with good oil field practice:

Signed: P. Eng. Date:
Name: Company:
Title:

Acknowledged by
Operations and Conservation Division
File:

OFFSHORE LABRADOR BIOLOGICAL STUDIES (OLABS) PROGRAM

The Offshore Labrador Biological Studies (OLABS) Program is an Industry/Community/Government program designed to assist in the environmental assessment of oil and gas developments off the coast of Labrador. Basically, its purpose is to complement the environmental studies already undertaken by Industry and Government in the region and to fill major gaps in the knowledge of the marine and coastal biota.

OLABS, which is funded by Industry, is planned as a three-year data gathering program costing some \$2.5 million. It was originally conceived within the larger Eastern Arctic Marine Environmental Studies (EAMES) program, and includes studies on fish and fisheries, zoobenthos, seabirds, marine mammals and plankton.

The design and management of the program is handled by the OLABS Management Committee. There are two Committee members from Industry, two from the Labrador Resources Advisory Council (representing the coastal communities); two from the Departments of the Environment, and Fisheries and Oceans; two from the Department of Energy, Mines and Resources (Chairman and OLABS Program Manager); one from the Department of Indian and Northern Affairs (EAMES Program Manager); and, one from the Government of Newfoundland and Labrador (Department of Consumer Affairs and Environment).

The studies encompass the area from the coastline to the outer edge of the

continental shelf, from latitude 61° 18' North to 52° 00' North, and extending into the Strait of Belle Isle.

The objectives of OLABS are to: (i) complement the on-going research work by Industry and the federal government in the region; (ii) accelerate completion of the basic inventory of the flora and fauna and to contribute to a description of the existing trophic relationships in the Labrador Sea; (iii) use this information toward identification of sensitive areas and time periods in the OLABS study area; (iv) use the baseline biological information in formulating environmental requirements: for petroleum exploration and development programs including oil spill contingency plans; in the preparation of environmental monitoring programs; and, in the event of gas or oil production, to facilitate the environmental assessment and review process.

Two studies were carried out in 1978, one on whales which involved historical research only, and the other on seabirds which involved field work by the Canadian Wildlife Service. The OLABS studies are expected to be fully underway in 1979.

The Department of Energy, Mines and Resources is funding, in connection with OLABS, a field worker for the Labrador Resources Advisory Council, based in Happy Valley, to exchange information on the studies with the coastal communities of Labrador.

SECURITY AND VISIT CLEARANCES FOR INDUSTRY PERSONNEL

Security Clearances

The appropriate Office of the Maritime Commander, Department of National Defence, must be notified before an offshore exploration program commences. Programs off the East Coast, in Hudson Bay and in Arctic Waters east of longitude 141° West, are the concern of the Commander, Maritime Command, Halifax; those off the West Coast are the concern of the Commander, Maritime Forces Pacific, Victoria. Addresses and further details are given in Section B.

Where, for security reasons, the Commander, Maritime Command objects to a proposed program, representatives of the operators may be called to discuss operational details of the program with staff officers of Maritime Command.

Normally, no security clearance is required for these discussions. However, it may be useful for bona-fide operators with extensive or long-term exploration programs to nominate one or two persons for security clearance in order to discuss potential restrictions that might be placed on this program for security reasons. The number of security-cleared personnel may exceed two if this can be justified. The Resource Management Branch, at the request of the Department of National Defence, monitors the applications for security clearance.

Industry representatives without security clearance are allowed to conduct unclassified briefings with staff officers of Maritime Command if the respective Maritime Commander is provided with 10 to 14 days prior notice of any proposed discussions.

Application

A representative nominated for security clearance by an operator should complete a Personal History Form and send same to the Director-General, Resource Management

Branch, Department of Energy, Mines and Resources, Ottawa K1A 0E4. Copies of the Personal History Form (DND 450) are available from this Branch. The operator will be notified by the Branch as soon as the application has been processed. Processing may take in the order of three months, and operators should take this into account when planning offshore activities. It usually takes less time for a Canadian citizen to obtain security clearance.

A security clearance is valid for five years, and may be renewed by resubmitting a Personal History Form. A change in employment or lapse of the five-year period invalidates a security clearance.

Please note that the term "clearance" should be used when referring to personnel, whereas the term "approval" should be used in connection with exploration programs.

Visit Clearance Requests

The procedures whereby security-cleared representatives of industry may meet with staff officers of Maritime Command have been standardized and simplified. They involve the use of Visit Clearance Request forms which are available from the Security Services, Ottawa.

Security-cleared representatives should submit these Visit Clearance Requests direct to the Department of Supply and Services in Ottawa. It is advisable to request that the visit be for six months, the maximum allowed. This enables representatives to contact Maritime Command directly at any time during the six-month period for discussions without the necessity of referring back to the Department of Supply and Services prior to each visit. The names of all security-cleared employees in one company may be shown on one Visit Clearance Request. Also, it is suggested that the request be resubmitted at the end of five months for renewal purposes.

As stated in Section B, the Office of the Commander, Maritime Command, should be given 45 days' advance notice in writing of any

exploration program, and approval must be obtained from the Department of National Defence before the commencement of work.

SELECTED PUBLICATIONS

Maps and Charts

The following maps may be obtained by writing to the Resource Management Branch, Department of Energy, Mines and Resources, Ottawa, Ontario. K1A 0E4

Map No. 100 West Coast ...approx 1:1,584,000
Map No. 150 East Coast ...approx 1:1,000,000
Map No. 151 Labrador Sea
and Hudson Strait ...approx 1:1,000,000
Map No. 200 Hudson Bay ...approx 1:1,000,000

These are official maps showing the distribution of Canadian offshore oil and gas permits and leases and are revised to the date of mailing. An index is provided free for use with the maps, indicating the location of each permit and lease, the name of the permittee and lessee, the date of issue and the acreage and hectare involved. The price of each map is \$3.00, which includes the cost of mailing.

Smaller, page-sized permit maps, shown in Part II, Section B, are also available upon request. They are updated periodically and are available without charge.

Maps showing permits in the Territories and in waters of the high Arctic are available from the Northern Non-Renewable Resources Branch, Department of Indian Affairs and Northern Development. For more information see Part I, Section B.

Maps and base maps showing Canada oil and gas permit acreage are also available commercially from:

Nickle Map Service Ltd.
330-9th Avenue S.W.
Calgary, Alberta
T2P 1K7

Phone: (403) 269-7971

or from:

Field Title Service
400 Three Calgary Place
Calgary, Alberta
T2P 0J1

Phone: (403) 263-3750

For maps and charts available from Surveys and Mapping Branch, Department of Energy, Mines and Resources or the Canadian Hydrographic Service, Department of Fisheries and the Environment, see Part I, Section D.

Federal Legislation

Copies of federal acts and regulations, including those listed below, may be obtained by writing to:

The Canadian Government Publishing Centre
Supply and Services
Hull, Quebec
K1A 0S9

- Oil and Gas Production and Conservation Act
- Public Lands Grants Act
- Territorial Lands Act
- Office Consolidation of the Canada Oil and Gas Land Regulations
- Canada Oil and Gas Drilling Regulations
- Canada Mining Regulations
- Public Lands Oil and Gas Regulations
- Public Lands Mineral Regulations
- Arctic Waters Pollution Prevention Act
- Arctic Waters Pollution Prevention Regulations
- Canada Shipping Act

The Oil and Gas Production and Conservation Act applies to Canada lands in the Offshore as well as in the Yukon and Northwest Territories. The Act provides comprehensive statutory authority for controlling all offshore oil and gas activities, including the safety of personnel, the conservation of resources and the prevention of waste and pollution. The Act's broad authority

includes regulation of the exploration, drilling, production, conservation, measuring, gathering, storage, processing, distribution, transmission and other handling of oil and gas.

The disposition of oil and gas rights underlying Canada Lands is provided for by the Canada Oil and Gas Land Regulations, which were promulgated under the Public Lands Grants Act and the Territorial Lands Act. It is the former Act that provides statutory authority for the application of these Regulations to the Offshore. Copies of both Acts are included in the Office Consolidation of the Regulations listed above.

Information on the proposed Canada Oil and Gas Act and the amended Canada Oil and Gas Land Regulations is given in this publication in Part II, Section A.

Commercial Publications

In addition to the permit maps already referred to, a number of other Canadian

publications of interest to offshore operators are commercially available. These include:

- Nickle's Daily Oil Bulletin, and
- Nickle's Canadian Oil Register,
330-9th Avenue S.W.
Calgary, Alberta
T2P 1K8
Phone: (403) 269-5621
- Oilweek
200, 918-6th Avenue S.W.
Calgary, Alberta
T2P 0V5
Phone: (403) 266-5621
- Canadian Petroleum
Corpus Publishers
151 Bloor St. West
Suite 250
Toronto, Ontario
M5S 1S4
Phone: (416) 920-8560

SECTION B

DRILLING UNITS ACTIVE IN THE CANADIAN OFFSHORE (1966-1978)

Year(s)	Name	Owner	Registry	Type	Rated Water Depth m	Wells Drilled
1966	Glomar Sirte	Global Marine Inc.	Panamanian	Drillship	185	2
1967-1969	Sedco 135F	Sedco Inc.	Canadian (*Liberian)	Semisubmersible	185	14
1969-1970	Wodeco II	Western Offshore Drilling & Exploration Company	-	Barge	185	3
1969-1973	Sedneth 1	Sea Drilling Netherlands	Dutch	Semisubmersible	200	23
1971	Ben Ocean Typhoon	Canan/ Ben Line	U.S.	Drillship	185	1
1970-1977	Sedco H	Sedco Inc.	Canadian	Semisubmersible	185	40
1971-1975	Sedco I	Sedco Inc.	Canadian	Semisubmersible	185	24
1972-1975	Sedco J	Sedco Inc.	Canadian	Semisubmersible	185	15
1973-1976	Pelican	S.A. Somaser	French	Dynamically- Positioned Drillship	300	8
1974-1975	**Havdrill	Nordic Offshore Drilling	Norwegian	Dynamically- Positioned Drillship	300	2
1974	Pentagone 82	Forex- Neptune	French	Semisubmersible	660	3
1975	Sedco 445	Sedco Inc.	Liberian	Dynamically- Positioned Drillship	610	1

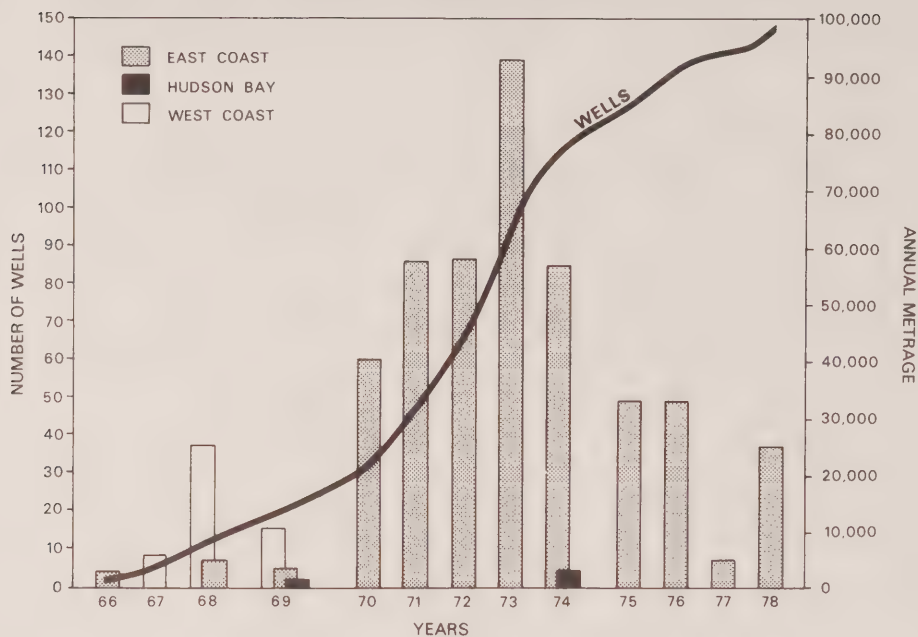
* Registry changed when unit moved to North Sea.

** Now owned by Canadian Marine Drilling and renamed Canmar Explorer III.

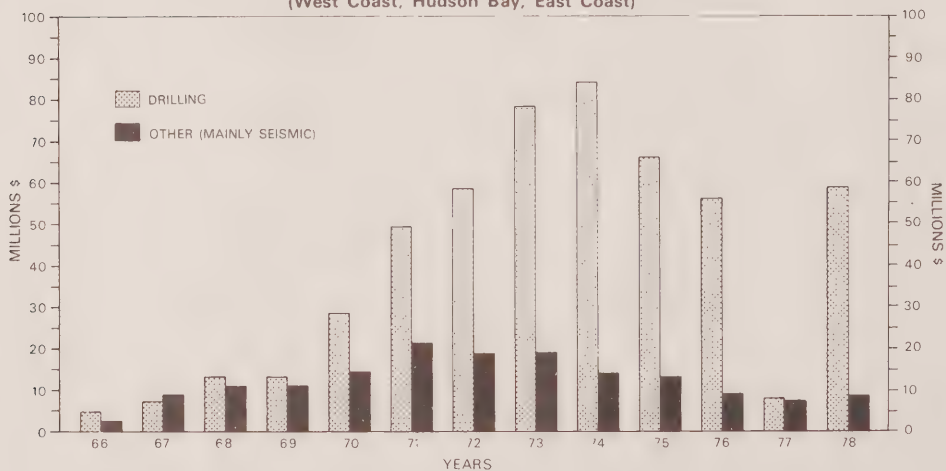
Year(s)	Name	Owner	Registry	Type	Rated Water Depth m	Wells Drilled
1976	Petrel	Offshore Europe	Belgian	Dynamically Positioned Drillship	915	2
1976	Zapata Ugland	Zapata Corp.	Norwegian	Self-Propelled Semisubmersible	300	1
1976-1978	Explorer I	Canadian Marine Drilling	Canadian	Drillship	185	2
1976-1978	Explorer II	Canadian Marine Drilling	Canadian	Drillship	185	2
1976-1978	Explorer III (Previously Havdrill)	Canadian Marine Drilling	Canadian	Dynamically Positioned Drillship	300	2
1977	Glomar Conception	Global Marine Inc.	U.S.	Drillship	185	6 *
1977-1978	Gulftide	Odeco	U.K.	Jackup	75	5
1978	Ben Ocean Lancer	Ben Odeco Ltd.	U.K.	Dynamically Positioned Drillship	915	2
1978	Glomar Grand Banks	Global Marine Inc.	U.S.	Drillship	185	9 *
1978	Pelerin	Dynamic Drilling	Norwegian	Dynamically Positioned Drillship	1000	2

* Coal evaluation program off Cape Breton Island.

OIL & GAS DRILLING OFFSHORE CANADA ANNUAL METRAGE & CUMULATIVE NUMBER OF WELLS

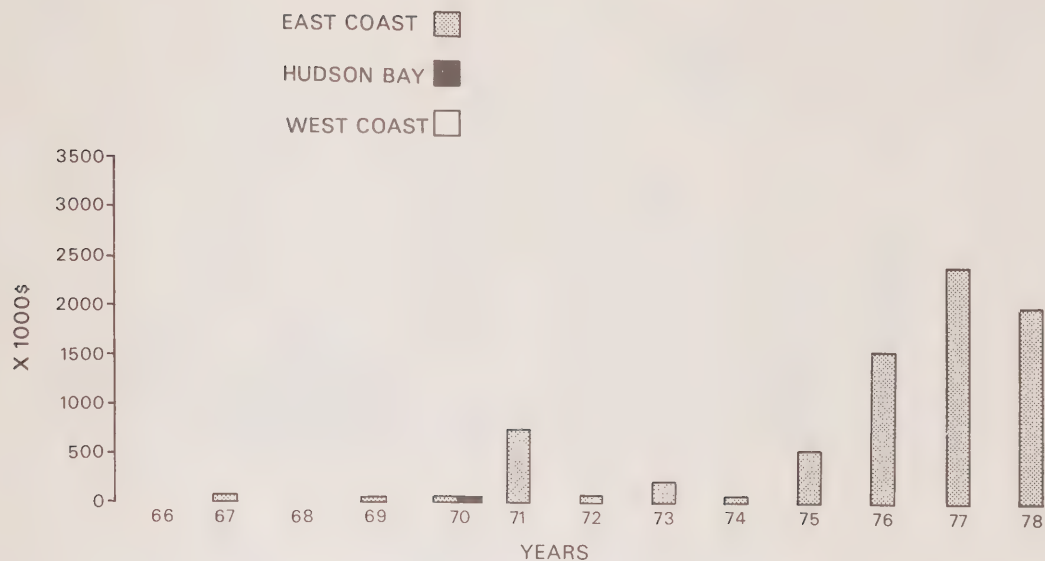


APPROXIMATE EXPENDITURES BY INDUSTRY IN THE SEARCH FOR OIL & GAS OFFSHORE CANADA (West Coast, Hudson Bay, East Coast)

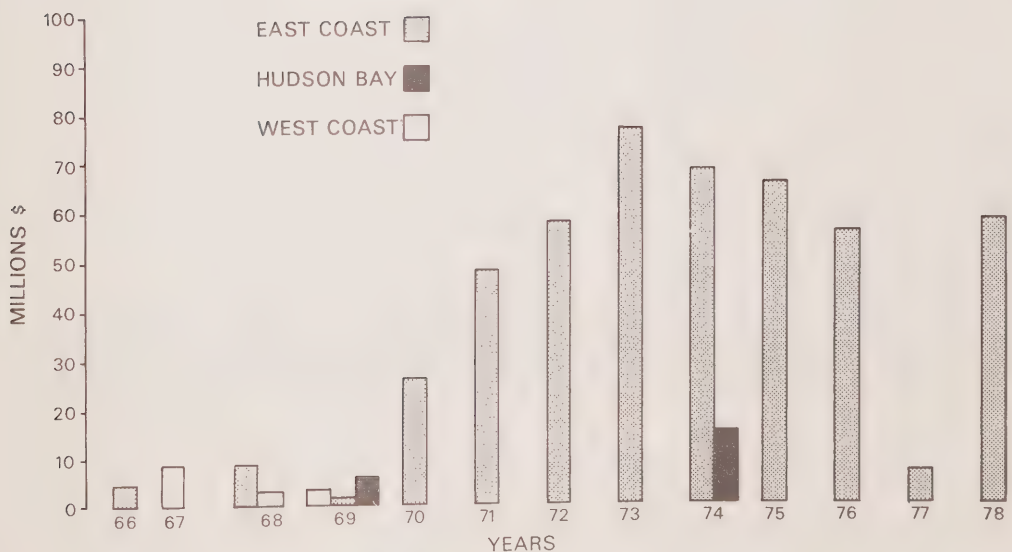


Published by Resource Management Branch

ESTIMATED EXPENDITURES RESEARCH/ENVIRONMENTAL WORK 1966-1978

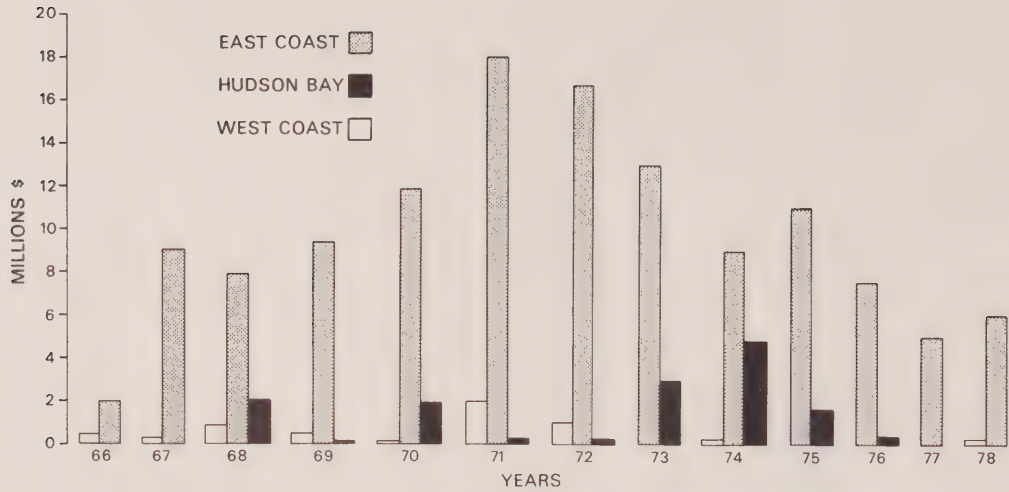


ESTIMATED EXPENDITURES DRILLING OFFSHORE 1966-1978

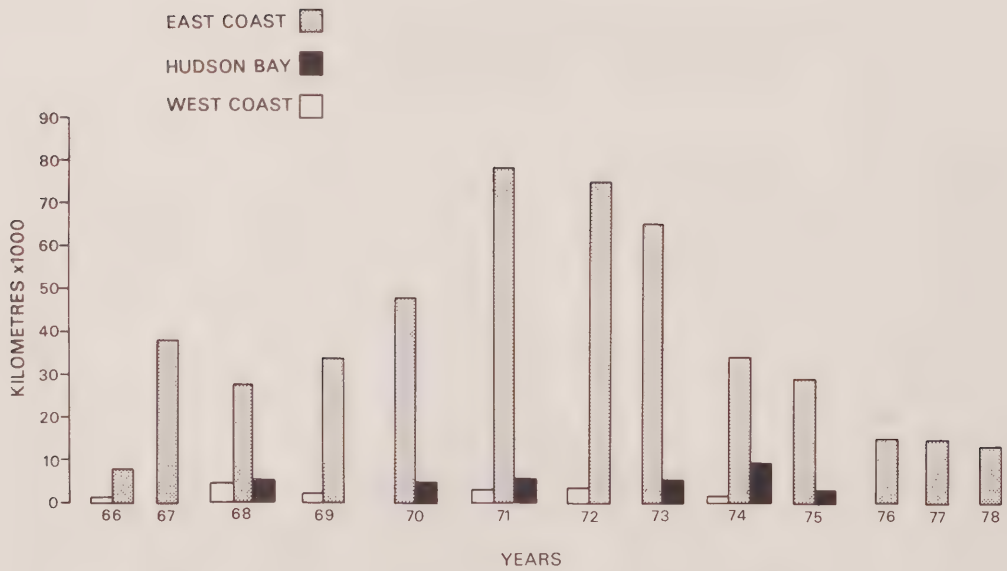


Published by Resource Management Branch

ESTIMATED EXPENDITURES GEOLOGICAL & GEOPHYSICAL WORK 1966-1978



MARINE SEISMIC ACTIVITY 1966-1978



Published by Resource Management Branch

OIL AND GAS PERMIT MAPS AND INDEX

INDEX OF PERMITTEES AND LESSEES

KEY NO.			KEY NO.		
1.	Lochiel Exploration Ltd.		28.	Texaco Canada Inc.	
2.	Siebens Oil & Gas Ltd.		29.	Amerada Mineral Corporation of Canada Limited	
3.	Hudson's Bay Oil and Gas Company Limited	10%	30.	Dome Petroleum Limited	
	Ranger Oil (Canada) Limited	57%	32.	Canadian Superior Oil Ltd.	
	Bow Valley Industries Ltd.	8%	47.	Hudson's Bay Oil and Gas Company Limited	
	Canadian Superior Oil Ltd.	20%	48.	Murphy Oil Company Ltd.	50%
	Sun Oil Company Limited	5%		Francana Oil & Gas Ltd.	50%
4.	Hudson's Bay Oil and Gas Company Limited	28.57%	50.	Paddon Hughes Development Co. Ltd. (The)	
	Canadian Superior Oil Ltd.	57.14%	51.	Sogepet Limited	33-1/3%
	Sun Oil Company Limited	14.29%		Teck Corporation Limited	33-1/3%
6.	Shell Canada Resources Limited	61.96%		Canadian Homestead Oils Limited	33-1/3%
	Canadian Superior Oil Ltd.	21.74%	53.	Atlantic Richfield Canada Ltd.	52.6%
	Hudson's Bay Oil and Gas Company Limited	10.87%		Aquitane Company of Canada Ltd.	34.2%
	Sun Oil Company Limited	5.43%		Petrofina	6.6%
7.	Ulster Petroleums Ltd.			Sogepet Limited	6.6%
8.	Ranger Oil (Canada) Limited		54.	Aquitane Company of Canada Ltd.	
9.	Chevron Canada Limited		58.	Pan Ocean Oil (Canada Ltd.	45%
10.	Shell Canada Resources Limited	50%		Peyto Oils Ltd.	28%
	Shell Explorer Limited	50%		High North Petroleum Ltd.	14%
	Production Canada Ltd.			Norris Holdings Ltd.	13%
11.	B.P. Exploration Canada Limited	60%	64.	Sogepet Limited	60%
	Columbia Gas Development of Canada Ltd.	17%		Canada Homestead Oils Limited	20%
	Chevron Canada Limited	13%		Teck Corporation Limited	20%
	Gulf Canada Limited	10%	75.	Union Oil Company of Canada Limited	
12.	Total Eastcan Exploration Ltd.	28.33%	77.	Canada-Cities Service, Ltd.	30%
	Amerada Minerals Corporation of Canada Ltd.	16.67%		Hamilton Brothers Canadian Gas Company Ltd.	27.9%
	Gulf Canada Limited	16.67%		Mobil Oil Canada, Ltd.	25%
	Aquitane Company of Canada Ltd.	13.33%		Siebens Oil & Gas Ltd.	17.5%
	AGIP Canada Ltd.	10.00%	78.	Amoco Canada Petroleum Company Ltd.	50%
	Sun Oil Company Ltd.	10.00%		Imperial Oil Limited	50%
	Total Petroleum (North America) Ltd.	5.00%	80.	B.P. Exploration Canada Limited	60%
13.	Gulf Canada Limited			Chevron Canada Limited	18%
14.	Esso Resources Canada Limited			Columbia Gas Development of Canada Ltd.	12%
16.	Amoco Canada Petroleum Company Ltd.			Gulf Canada Limited	10%
17.	Amoco Canada Petroleum Company Ltd.	50%	90.	Canadian Homestead Oils Limited	
	Texaco Canada Inc.	50%	102.	Fairholme Development Limited	
21.	Mobil Oil Canada, Ltd.		105.	Douglas F. Smith	
22.	Imperial Oil Limited				
23.	Star Oil & Gas Ltd.				
24.	Shell Canada Resources Limited				



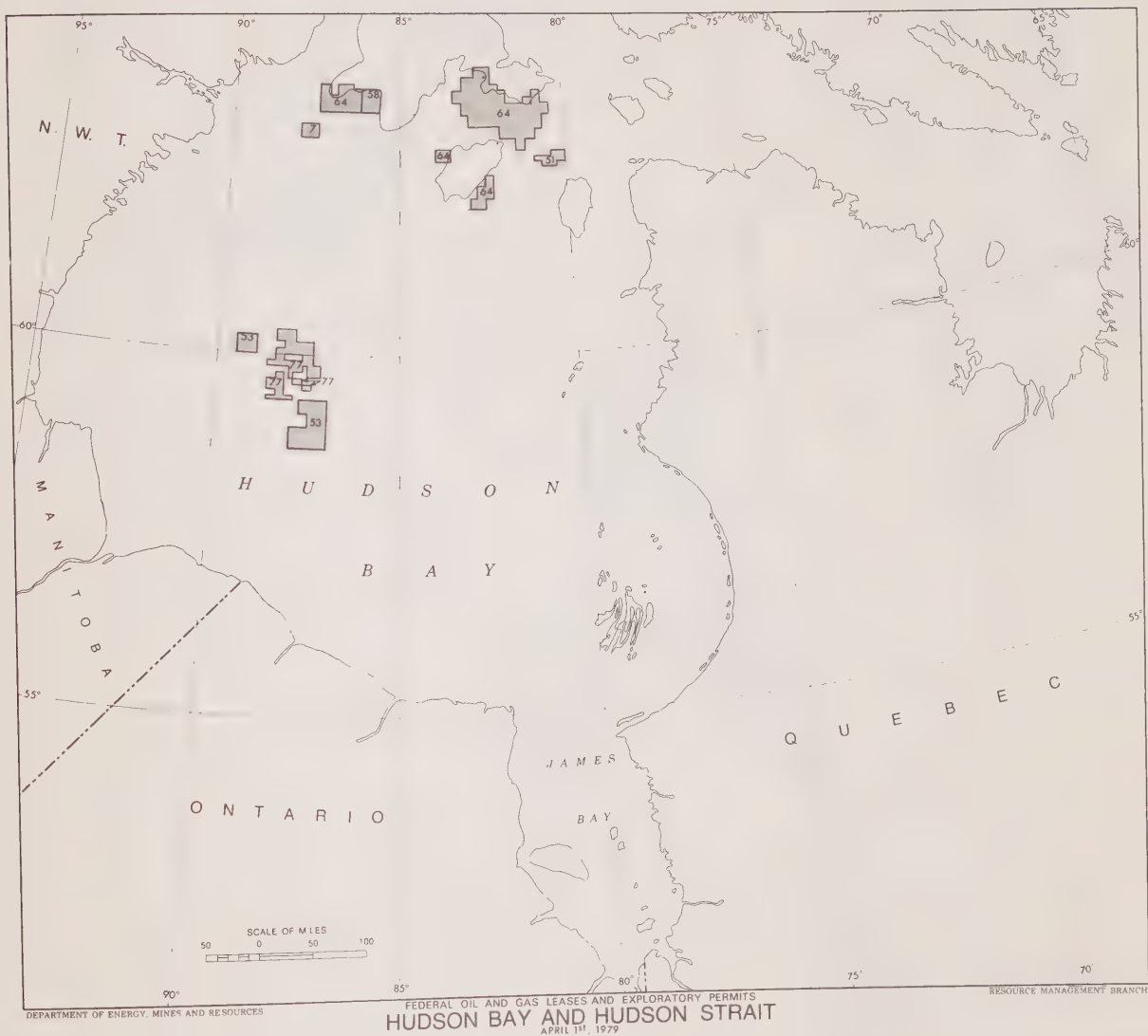
DEPARTMENT OF ENERGY MINES AND RESOURCES

FEDERAL OIL AND GAS LEASES AND EXPLORATORY PERMITS

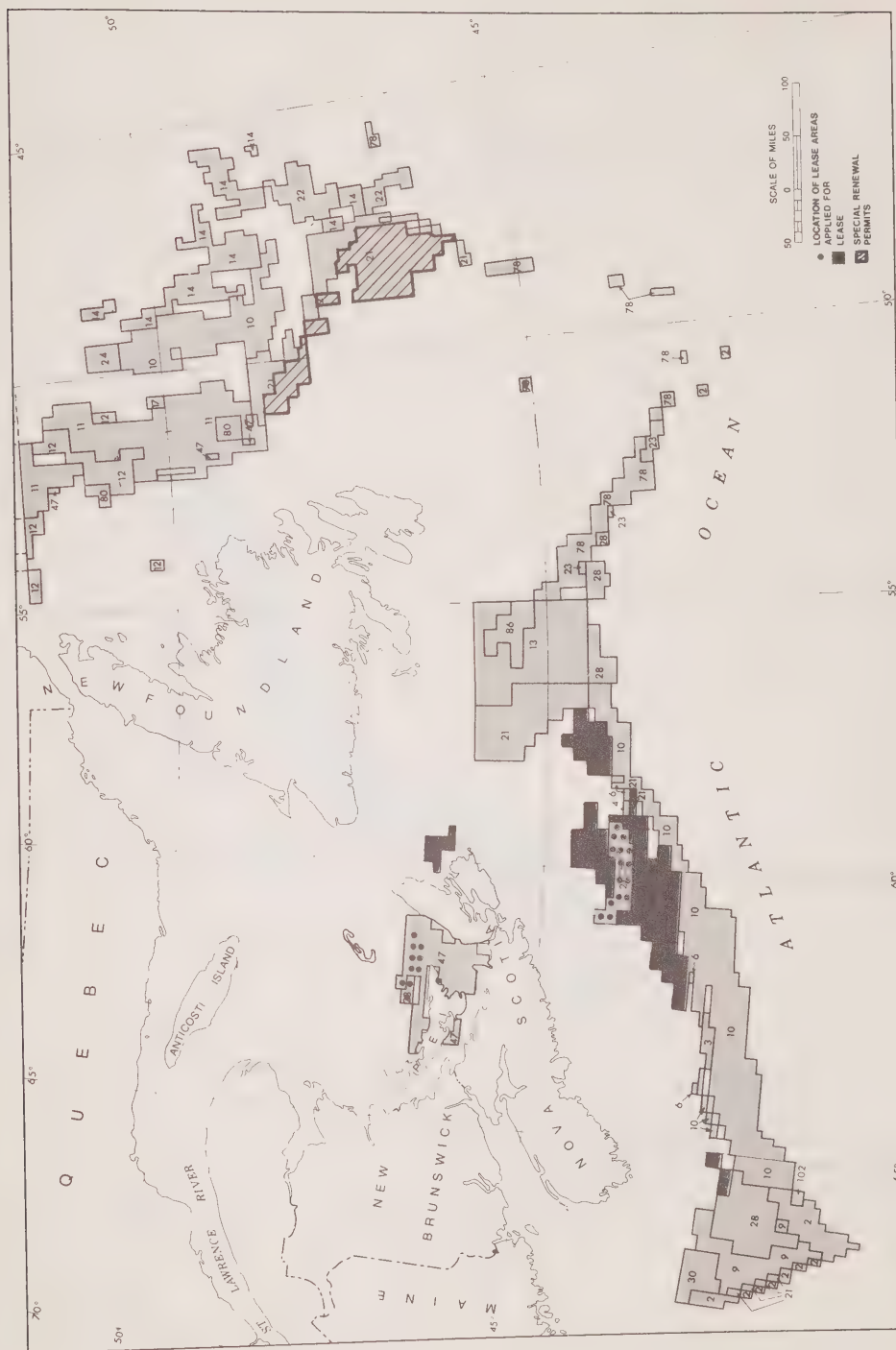
RESOURCE MANAGEMENT BRANCH

PACIFIC
APRIL 1979

PERMITTEE	(SINGLES)	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
AGIP Canada Ltd.	--	--	--	--	--	--	-See 12
Amerada Minerals Corporation of Canada Ltd.	--	--	--	--	--	--	29 See 12
Amoco Canada Petroleum Company Ltd.	--	--	--	--	--	--	16 see 17,78
Aquitane Company of Canada Ltd.	--	289 576	--	--	--	289 576	54 see 12,53
		(716,166)	--	--	--	(716,166)	
Atlantic Richfield Canada Ltd.	--	--	--	--	--	--	-See 53
Bow Valley Industries Ltd.	--	--	--	--	--	--	-See 3
BP Exploration Canada Limited	--	--	--	--	--	--	-See 11,80
Canada-Cities Service Ltd.	--	--	--	--	--	--	-See 77
Canadian Homestead Oils Limited	--	--	--	--	--	--	90 see 51,64
Canadian Superior Oil Ltd.	--	--	--	--	--	--	-See 3
Chevron Canada Limited	806 830	--	--	--	--	806 830	9 see 11,80
	(1,995,309)	--	--	--	--	(1,995,309)	
Columbia Gas Development of Canada Ltd.	--	--	--	--	--	--	-See 11,80
Dome Petroleum Limited	399 680	--	--	--	--	399 680	30
	(988,414)	--	--	--	--	(988,414)	
Esso Resources Canada Limited	1 861 625	478 688	--	--	--	2 340 313	14
	(4,603,917)	(1,183,833)	--	--	--	(5,787,750)	
Fairholme Development Limited	38 760	--	--	--	--	38 760	102
	(95,844)	--	--	--	--	(95,844)	
Francona Oil & Gas Ltd.	--	--	--	--	--	--	-See 48
Gulf Canada Limited	2 177 440	--	--	--	--	2 177 044	13 see 11,12,80
	(5,385,078)	--	--	--	--	(5,385,078)	
Hamilton Brothers Canadian Gas Company Ltd.	--	--	--	--	--	--	-See 77
High North Petroleum Ltd.	--	--	--	--	--	--	-See 58
Hudson's Bay Oil and Gas Company Limited	1 194 345	233 700	--	--	--	1 428 045	47 see 3,6
	(2,952,795)	(577,965)	--	--	--	(3,530,764)	
Imperial Oil Limited	715 175	--	--	--	--	715 175	22 see 78
	(1,768,710)	--	--	--	--	(1,768,710)	
Lochiel Exploration Ltd.	--	222 660	--	98 420	321 080	1	
	--	(550,576)	--	(243,386)	(793,962)		
Mobil Oil Canada Ltd.	2 509 595	--	--	--	2 509 595	21 see 77	
	(6,206,486)	--	--	--	(6,206,486)		
Murphy Oil Company Ltd.	--	--	--	--	--	--	-See 48
Norris Holdings Ltd.	--	--	--	--	--	--	-See 58



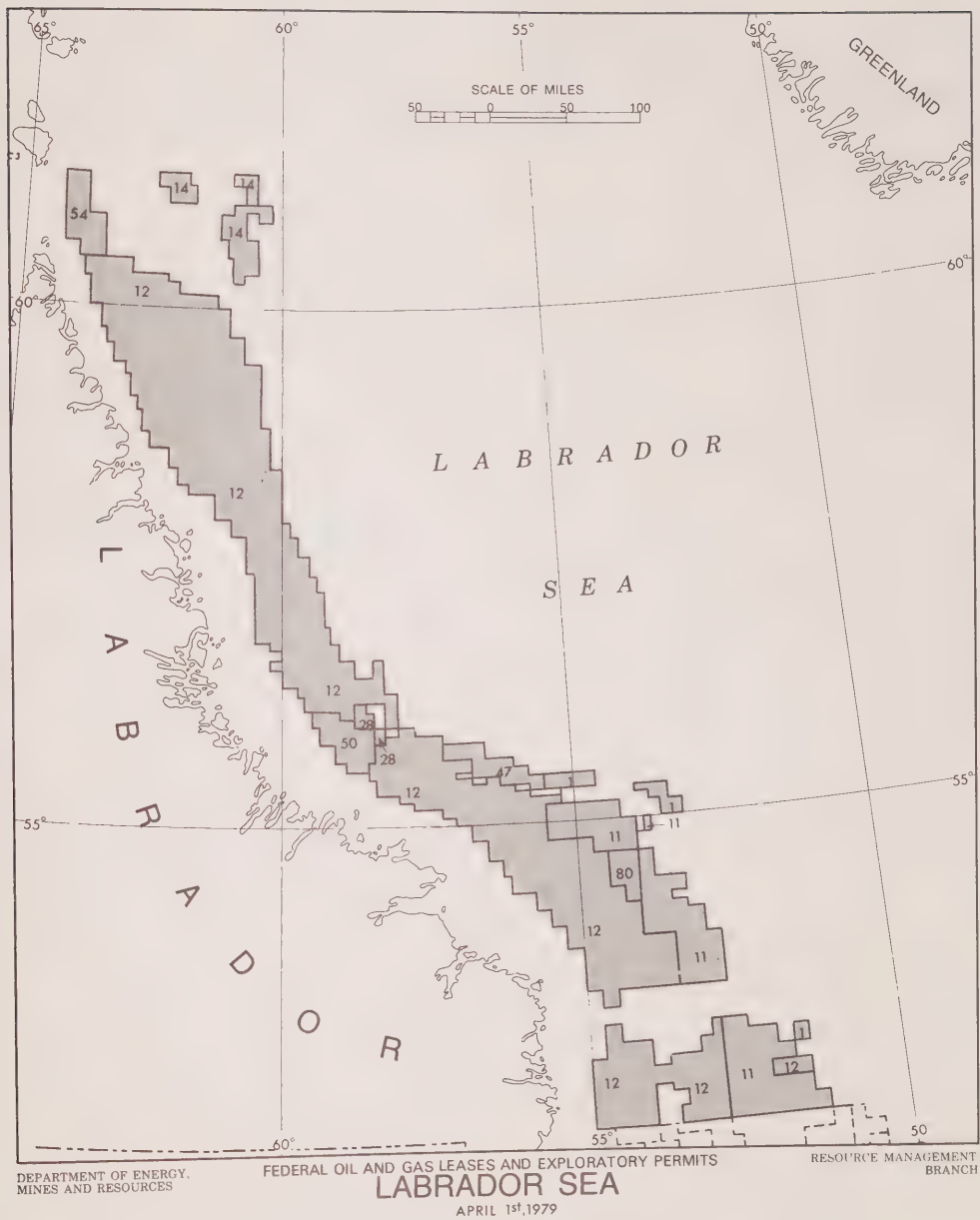
PERMITTEE	(SINGLES)	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Paddon Hughes Development Co. Ltd. (The)		--	304 660 (753,404)	--	--	304 660 (753,404)	50
Pan Ocean Oil (Canada) Ltd.		--	--	--	--	--	-See 58
Petrofina Canada Ltd.		--	--	--	--	--	-See 53
Peyto Oils Ltd.		--	--	--	--	--	-See 58
Ranger Oil (Canada) Limited		--	--	--	79 680 (197,030)	79 680 (197,030)	8 see 3
Shell Canada Resources Limited		278 070 (687,688)	--	--	--	278 070 (687,688)	24 see 10
Shell Explorer Limited		--	--	--	--	--	-See 10
Siebens Oil & Gas Ltd.		908 840 (2,247,585)	--	--	--	908 840 (2,247,585)	2 see 77
Smith Douglas Fletcher		--	--	--	1 186 455 (2,933,971)	1 186 455 (2,933,971)	105
Sogepet Limited		--	--	--	--	--	-See 51,53,64
Star Oil & Gas Ltd.		149 120 (368,806)	--	--	--	149 120 (368,806)	23
Sun Oil Canada Limited		--	--	--	--	--	-See 3,12
Teck Corporation Limited		--	--	--	--	--	-See 51,64
Texaco Canada Inc.		1 235 215 (3,054,905)	72 175 (178,483)	--	--	1 307 390 (3,233,388)	28 see 17
Total Eastcan Exploration Ltd.		--	--	--	--	--	-See 12
Total Petroleum (North America) Ltd.		--	--	--	--	--	-See 12
Ulster Petroleum Ltd.		--	--	46 896 (115,980)	--	46 896 (115,980)	7
Union Oil Company of Canada Limited		--	--	--	45 440 (112,397)	45 440 (112,397)	75



FEDERAL OIL AND GAS LEASES AND EXPLORATORY PERMITS
 GULF OF ST LAWRENCE AND ATLANTIC
 APRIL 1st 1979

DEPARTMENT OF ENERGY,
 MINES AND RESOURCES

PERMITTEE	(JOINT)		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Amoco Canada Petroleum Company Ltd.		50%	1 177 815	--	--	--	1 177 815	78
Imperial Oil Limited		50%	(2,912,888)				(2,912,888)	
Amoco Canada Petroleum Canada Ltd.		50%	49 680	--	--	--	49 680	17
Texaco Canada Inc.		50%	(122,851)				(122,851)	
Atlantic Richfield Canada Ltd.		52.6%	--	--	423 416	--	423 416	53
Aquitaine Company of Canada Ltd.		34.2%			(1,047,201)		(1,047,201)	
Petrofina Canada Ltd.		6.6%						
Sagepet Limited		6.6%						
B.P. Exploration Canada Limited		60%	135 060	150 330	--	--	285 390	80
Chevron Canada Limited		18%	(334,040)	(371,735)			(705,775)	
Columbia Gas Development of Canada Limited		12%						
Gulf Canada Limited		10%						
B.P. Exploration Canada Limited		60%	3 084 020	1 873 150	--	--	4 957 170	11
Columbia Gas Development of Canada Ltd.		17%	(7,627,001)	(4,632,405)			(12,259,406)	
Chevron Canada Limited		13%						
Gulf Canada Limited		10%						
Canada-Cities Service Ltd.		30.0%	--	--	429 314	--	429 314	77
Hamilton Brothers Canadian Gas Company, Ltd.		27.5%			1,061,616		1,061,616	
Mobil Oil Canada Ltd.		25.0%						
Siebens Oil & Gas Ltd.		17.5%						
Pan Ocean Oil (Canada)-Ltd.		45%	--	--	115 512	--	115 512	58
Peyto Oils Ltd.		28%			(285,644)		(285,644)	
High North Petroleum Ltd.		14%						
Norris Holdings Ltd.		13%						



PERMITTEE	(JOINT)		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Ranger Oil (Canada) Ltd.	57%	113 760	--	--	--	113 760	3	
Canadian Superior Oil Ltd.	20%	(281,304)				281,304		
Hudson's Bay Oil and Gas Company Limited	10%							
Bow Valley Industries Ltd.	8%							
Sun Oil Company Limited	5%							
Shell Canada Resources Limited	61.96%	56 305	--	--	--	56 305	6	
Canadian Superior Oil Ltd.	21.74%	(139,274)				(139,274)		
Hudson's Bay Oil and Gas Company Limited	10.87%							
Sun Oil Company Limited	5.43%							
Shell Canada Resources Limited	50%	5 855 825	--	--	4 967 535	10 823 360	10	
Shell Explorer Limited	50%	(14,481,839)			(12,283,818)	(26,765,657)		
Sogepet Limited	33-1/3%	--	--	95 008	--	95 008	51	
Teck Corporation Limited	33-1/3%			(234,930)		(234,930)		
Canadian Homestead Oils Limited	33-1/3%							
Sogepet Limited	60%	--	--	1 188 264	--	1 188 264	64	
Canadian Homestead Oils Limited	20%			(2,938,578)		(2,938,578)		
Teck Corporation Limited	20%							
Total Eastcan Exploration Ltd.	28.33%	939 345	9 143 764	--	--	10 083 109	12	
Amerada Minerals Corporation of Canada Ltd.	16.67%	(2,323,096)	(22,613,280)			(24,936,376)		
Gulf Canada Limited	16.67%							
Aquitaine Company of Canada Ltd.	13.33%							
AGIP Canada Ltd.	10.00%							
Sun Oil Company Limited	10.00%							
Total Petroleum (North America) Ltd.	5.00%							
TOTAL			23 686 505 (58,577,830)	12 768 703 (31,577,847)	2 298 410 (5,683,949)	6 377 530 (15,770,602)	45 131 148 (111,610,228)	

PERMIT ACREAGE AND HECTARAGE FOR WHICH LEASE APPLICATIONS HAVE BEEN RECEIVED

PERMITTEE		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS.
Canadian Homestead Oils Limited		11 711 (90,012)	--	--	--	11,711 (90,012)	90
Canadian Superior Oil Ltd.	57.14%	16 524	--	--	--	16 524	4
Hudson's Bay Oil and Gas Company Limited	28.57%	(45,912)				(45,912)	
Sun Oil Company Limited	14.29%						
Mobil Oil Canada, Ltd.		717 537 (2,258,418)	--	--	--	717 537 (2,258,418)	21
Shell Canada Resources Limited	61.96%	14 692	--	--	--	14 692	6
Canadian Superior Oil Ltd.	21.74%	(45,912)				(45,912)	
Hudson's Bay Oil and Gas Company Limited	10.87%						
Sun Oil Company Limited	5.43%						
Texaco Exploration Canada Ltd.		65 596 (131,223)	--	--	--	65 596 (131,223)	8
TOTAL		826 060 (2,571,557)				826 060 (2,571,557)	

OIL AND GAS LEASES (HECTARES AND ACRES)

LESSEE		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS.
Mobil Oil Canada Ltd.		11 024 (27,277)	--	--	--	11 024 (27,277)	21
Shell Canada Resources Limited	50%	572 801	--	--	--	572 801	10
Shell Explorer Limited	50%	(1,416,617)	--	--	--	(1,416,617)	
Murphy Oil Company Ltd.	50%	32 334	--	--	--	32 334	48
Francana Oil & Gas Ltd.	50%	(79,966)	--	--	--	(79,966)	
TOTAL		616 159 (1,523,860)				616 159 (1,523,860)	

SPECIAL RENEWAL PERMIT (HECTARES)

PERMITTEE		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS.
Mobil Oil Canada Ltd.	75%	1,667,970	--	--	--	1,667,970	21
Petro Canada	25%						
TOTAL		1,667,970				1,667,970	

APPENDIX A

AVAILABILITY OF REPORTS AND WELL MATERIALS

Under the Canada Oil and Gas Land Regulations an operator is required to submit comprehensive reports on every program undertaken in connection with the permittee's offshore acreage. These reports, together with associated items such as cores, cuttings and paleontological materials derived from drilling operations, are held strictly confidential for the requisite period, and then made available for public examination.

Information submitted by a company can not be made available prior to its release from confidential status without the written consent of the company. Certain general data may be released at any time.

Release of Reports

Well history reports, well logs and associated materials from an exploratory well may be released two years after the rig release date, and information on a development well may normally be released after 30 days.

Reports of research work may be released five years after the date of completion of the program.

Reports of geological and geophysical surveys may be released two years after the surrender, cancellation or expiry of the permit. All such reports have been micro-filmed, including seismic sections and maps. After release, paper copies of seismic sections are available for examination only in Ottawa. Other regions have microfilm copies of seismic sections. The written report plus maps are available in both forms.

All reports and materials submitted to the Resource Management Branch, Department of Energy, Mines and Resources under the Canada Oil and Gas Land Regulations, and subsequently released from confidential status, are available for examination on an open-file basis at:

Resource Management Branch
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

Attention: S.A. MacInnis
Phone: (613) 995-9351

Copies of reports, both on paper and micro-film, of work conducted offshore East Coast and in Hudson Bay and Hudson Strait are available for examination at:

Resource Management Branch
Department of Energy, Mines and Resources
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Attention: T. Dexter
Phone: (902) 426-3179

Copies of all reports, both paper and micro-film are available for examination at:

Institute of Sedimentary and Petroleum
Geology
Geological Survey of Canada
Department of Energy, Mines and Resources
3303-33rd Street
Calgary, Alberta
T2L 2A7

Attention: W. Banning
Phone: (403) 284-0110

Copies of work conducted on Canada's West Coast, not including microfilm, are available for examination at:

Marine Geology Section
Pacific Geoscience Centre
Department of Energy, Mines and Resources
Institute of Ocean Sciences, Patricia Bay
Box 6000
Sidney, British Columbia
V8L 4B2

Attention: D.L. Tiffin
Phone: (604) 656-8423

Well Materials

Cores, cuttings, paleontological and other materials from wells drilled off Canada's East Coast, and in Hudson Bay and Hudson Strait, that are available for examination may be seen by appointment at:

Resource Management Branch
Department of Energy, Mines and Resources
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia
B2Y 4A2

Attention: G.D. Karg
Phone: (902) 426-2525

Cores, cuttings, paleontological and other materials from wells drilled off Canada's West Coast, in addition to suites of washed cuttings from wells drilled off the East Coast and in Hudson Bay and Hudson Strait that are available for examination may be seen by appointment at:

Institute of Sedimentary and Petroleum
Geology
Geological Survey of Canada
Department of Energy, Mines and Resources
3303-33rd Street
Calgary, Alberta
T2L 2A7

Attention: W. Banning
Phone: (403) 284-0110

The availability of reports and well materials relating to operations in the North under the administration of the Department of Indian Affairs and Northern Development are referred to in Part I of this publication.

Obtaining Copies of Reports

Well logs in hard copy, microfilm or digital form and well history reports in hard copy

or microfilm may be purchased after expiry of the confidential period from:

Riley's Datashare International Ltd.
P.O. Box 6730, Station D
Calgary, Alberta
T2P 2N8

Phone: (403) 265-7800

Geological and geophysical reports including seismic sections and maps may be purchased after expiry of the confidential period from:

Orhans Reproductions and Photomapping Ltd.
907-9th Avenue S.W.
Calgary, Alberta
T2L 1L3

Phone: (403) 265-7514

Commercial reproductions of many reports including well history reports may be purchased on a demand basis after the expiry of the confidential period from:

West Canadian Graphic Industries Ltd.
810 Fifth Avenue S.W.
Calgary, Alberta
T2P 0N5

Phone: (403) 263-2555

Copies of released research reports are available by sending a formal request to Resource Management Branch in either Ottawa or Dartmouth asking that a copy be made. This Branch will pass the request to a local duplicating firm and a copy of requested report and bill for same will be sent by the duplicating firm.

WELL HISTORY REPORTS

Well history reports are submitted by operators to the Resource Management Branch of the Department of Energy, Mines and Resources pursuant to the Canada Oil and Gas Drilling Regulations. Information on exploratory wells may be released by the Branch at the end of the two-year confidential period stipulated in the Regulations. This two-year period is calculated from the rig release date. A list of released well history reports is contained in the list of wells page 72.

GEOLOGICAL AND GEOPHYSICAL REPORTS

Geological and Geophysical Reports

Results of geological and geophysical surveys may be held confidential under the Canada Oil and Gas Land Regulations until two years following termination of rights involved. Under the proposed new legislation information on geological and geophysical surveys may be released from confidential status five years after the completion of the program or upon termination of rights, whichever is earlier.

Geological Reports

WEST COAST:

- Atlantic Richfield Canada Ltd. (1961): Underwater Geological Survey on Richfield's offshore acreage in the Hecate Strait. Project: 8831-A9-1E.
- Western Minerals Ltd. (1964): Regional Geology and Petroleum Prospects of S.E. Vancouver Island. Project: 8837-W7-1E.
- Amoco Canada Petroleum Company Ltd. (1966): Geologic section measurement and land specimen sampling - West coast of Vancouver Island. Projects: 8839-A4-1E, 2E.

HUDSON BAY AND HUDSON STRAIT REGION:

- Sogepet Limited (1962): Stratigraphy and Petroleum Possibilities of the Northern Hudson Bay Lowland. Project: 8730-S21-1E.
- Sogepet Limited (1963): Geological Reconnaissance - Severn River, Ontario; Shore-Fast Ice Reconnaissance - Fort Churchill to Cape Tatnam, Hudson Bay; Paleontology of Sogepet Field Party Collection - Hudson Bay Area; and Geological Reconnaissance - Southampton, Coats and Mansel Islands. Project: 8730-S21-2E.
- Transalta. (1967): Geological Evaluation/ Hudson Bay. Project: 8737-T13-1E.
- Darling Hydrocarbons Ltd. (1972): Geophysical/Geological Evaluation - Hudson Bay Area. Project: 8737-D2-1E.

EAST COAST:

- Amoco Canada Petroleum Company Ltd. (1965): Core hole program - Grand Banks and Gulf of St. Lawrence. Projects: 8631-A4-1E, 2E.

- Amoco Canada Petroleum Company Ltd. (1966): Surface Geology - Gulf of St. Lawrence. Project: 8639-A4-1E.
- Hudson's Bay Oil and Gas Company Limited (1968): Anchor pull testing and ocean bottom conditions - Offshore P.E.I. Project: 8631-H7-1E.
- Amoco Canada Petroleum Company Ltd. (1970): Geochemical Analysis of Samples from Brion Island No. 1 well - Gulf of St. Lawrence. Project: 8633-A4-1E.
- Amoco Canada Petroleum Company Ltd. (1970): Geological Evaluation for Brion Island No. 1 well - Gulf of St. Lawrence. Project: 8632-A4-3E in well history report.
- Canadian Export Gas and Oil Ltd. (1970): Regional Geology - Eastern Canada Offshore. Project: 8635-C2-1E.
- Cogima Environmental Resources S.A. (1970): Miscellaneous types of geological work in Strait of Belle Isle. Project: 8639-P10-1E.
- Western Decalta Petroleum Ltd. (1970): Regional Geology and Petroleum Prospects of Canadian Maritimes Region. Project: 8637-W6-1E.
- Amoco Canada Petroleum Company Ltd. (1971): Report on palynological analysis of PAN AM-IOE Tors Cove D-52 well - Grand Banks. Project: 8632-A4-1E in well history report.
- Amoco Canada Petroleum Company Ltd. (1971): Palynological analyses of cores from PAN AM-IOE Grand Falls H-09 well - Grand Banks. Project: 8632-A4-2E in well history report.
- Amoco Canada Petroleum Company Ltd. (1971): Palaeontological and palynological analyses of cores from Amoco-IOE Eider M-75 well - Grand Banks. Project: 8633-A4-2E in well history report.
- Amoco Canada Petroleum Company Ltd. (1971): Paleontological and palynological analyses of cores from Amoco-IOE Murre G-67 well - Grand Banks. Project: 8633-A4-3E in well history report.
- Aquitaine Company of Canada Ltd. (1971): Stratigraphical and geochemical study of samples from Tenneco et al Leif E-38 well - Labrador Shelf. Project: 8633-A11-1E.
- SOQUIP (1971): Report of a Geological Program - Gaspé Peninsula. Project: 8639-S14-1E.
- Troy Oil Ltd. (1971): Geology report - Northeast Newfoundland. Project: 8637-T3-1E.
- Darling Hydrocarbons Ltd. (1972): Geophysical/Geological Evaluations - Labrador Shelf. Project: 8637-D2-1E.
- Patrick Petroleum Corp. (1972): Geological evaluation of Permits W6227-W-6229 - Labrador Shelf. Project: 8637-P9-1E.
- Shell Canada Limited (1972): Geological Progress Report - Gulf of St. Lawrence. Project: 8639-S6-1E.
- SOQUIP (1972): Report of a Geological Program - Gulf of St. Lawrence. Project: 8639-S14-2E.
- SOQUIP (1972): Geological Report - Gulf of St. Lawrence. Project: 8637-S14-1E.
- Sultan Exploration Ltd. (1972): Geologic Evaluation - Chedabucto Bay. Project: 8639-S16-1E.
- Aquitaine Company of Canada Ltd. (1973): Source rock appraisal of Mobil-Gulf Adolphus 2-K-41 and Mobil Gulf Bonniton H-32 wells - Grand Banks. Project: 8633-A11-2E.
- Elf Oil Exploration and Production (1974): Reflectance of the insoluble organic matter of Elf et al Emerillon C-56 well - Grand Banks. Project: 8633-E4-1E in well history report.

Geophysical Reports

WEST COAST:

- Atlantic Richfield Canada Ltd. (1959/1960): Reflection Seismic - Graham Island Offshore Area. Project: 8824-A9-1E.
- Husky Oil Operations Ltd. (1962): Stratometer Survey - Tofino Area, Hecate Strait. Project: 8824-H4-1E.
- Amoco Canada Petroleum Company Ltd. (1966): Seismic Reflection - Queen Charlotte Islands. Projects: 8824-A4-1E, 2E.

- Amoco Canada Petroleum Company Ltd. (1966): Magnetometer Survey - Queen Charlotte Islands. Project: 8822-A4-1E.
 - Redwater Oils Ltd. (1968): Seismic Survey - Tofino Area. Project: 8824-R4-1E.
 - Offshore Oil and Gas Corporation Ltd. (1968): Aeromagnetic Survey - Queen Charlotte Strait. Project: 8821-O6-1E.
 - Canadian Bonanza Petroleum Ltd. (1969): Report on Airborne Geophysical Survey - Vancouver Island Area. Project: 8821-C30-1E.
 - Chevron Standard Limited. (1972): Marine Seismic Program - Juan de Fuca Strait. Project: 8824-C4-3E.
 - Austin Exploration Ltd. (1971): Geophysical/Geological Evaluation - Hudson Strait. Project: 8720-A12-1E.
 - Banner Petroleum Ltd. (1971): Seismic Refraction Survey - Hudson Bay. Project: 8725-B4-1E.
 - Blue Water Oil and Gas Ltd. (1971): Field and Interpretation Report on Refraction Marine Survey - Hudson Bay. Project: 8725-B10-1E.
 - Bow Valley Industries Ltd. (1971): Field and Interpretation Report on Seismic Refraction Survey - Hudson Bay. Project: 8725-B11-1E.
 - Bow Valley Industries Ltd. (1971): Reflection Seismic Survey - Hudson Bay. Project: 8724-B11-1E.
 - Canadian Industrial Gas and Oil Ltd. (1971): Refraction Marine Survey Field and Interpretation Report - Hudson Bay. Project: 8725-C6-1E.
 - Dome Petroleum Limited (1971): Reflection Seismic Survey - Hudson Bay. Project: 8725-D3-1E.
 - Home Oil Company Limited (1971): Marine Seismic Refraction - Hudson Bay. Project: 8725-H5-1E.
 - Siebens Oil and Gas Company Ltd. (1971): Field and Interpretation Report on a Refraction Marine Survey in Hudson Bay. Project: 8725-S1-1E.
 - Western Minerals Ltd. (1971): Report on a Seismic Sparker Survey - James Bay Area, N.W.T. Project: 8724-W7-1E.
 - Wainoco Oil and Chemicals Limited. (1971): Report on a Seismic Refraction Survey - Hudson Bay. Project: 8725-W1-1E.
 - Worldwide Energy Company Ltd. (1971): Field and Interpretation Report on a Refraction Marine Survey in Hudson Bay. Project: 8725-W4-1E.
 - Banner Petroleum Ltd. (1972): Report on the Technical Operations and Interpretations of an Aeromagnetic Survey in S.E. Hudson Bay. Project: 8721-B4-2E.
- HUDSON BAY AND HUDSON STRAIT REGION:
- Sogepet Limited (1962): Preliminary Report of Interpretation of Aeromagnetic Profiles - Southwest Hudson Bay. Project: 8727-S21-1E.
 - Sogepet Limited (1963): Interpretation of an Airborne Magnetometer Survey of an area near York Factory, Manitoba. Project: 8721-S21-1E.
 - Sogepet Limited (1964): Report on a Refraction Seismic Survey of the Hudson Bay Lowlands, and Geophysical and Geological Exploration - Cape Tatnam, Manitoba. Projects: 8725-S21-1E/8739-S21-1E.
 - Premium Iron Mines (1969): Air Magnetometer Survey Akpatok Island. Project: 8721-P15-1E.
 - Banner Petroleum Ltd. (1970): Report on Airborne Magnetometer Survey - Hudson Bay. Project: 8721-B4-1E.
 - Western Minerals Ltd. (1970): Aeromagnetic Interpretation - James Bay Area. Project: 8721-W7-1E.
 - Austin Exploration Ltd. for Sulpetro (1971): Geophysical/Geological Evaluation of Hudson Strait Area. Project: 8724-A12-1E.

EAST COAST:

Georges Bank

- Scurry-Rainbow Oil Limited (1973): Ocean Floor Gravity Meter Survey-Georges Bank. Project: 8623-S9-1E.
- Scurry-Rainbow Oil Limited (1974): Marine Seismic Survey - Georges Bank. Project: 8624-S9-1E.

Scotian Shelf

- Great Plains Development Company of Canada Ltd. (1965): Aeromagnetic Interpretation-Offshore Nova Scotia. Project: 8621-G14-1E.
- Great Plains Development Company of Canada Ltd. (1966): Seismic Interpretation - Offshore Nova Scotia. Project: 8624-G14-1E.
- Canadian Reserve Oil and Gas Ltd. (1971): Seismic Report - Scotian Shelf. Project: 8624-C12-2E.
- Chevron Standard Limited (1971): Marine Seismic Survey - Scotian Shelf. Project: 8620-C4-2E.
- Amoco Canada Petroleum Company Ltd. (1972): Reports for Seismic Surveys Completed in Scotian Shelf area. Projects: 8624-A4-14E/8627-A4-14DA.
- Chevron Standard Limited (1972): Marine Seismic Survey - Scotian Shelf. Project: 8620-C4-5E.
- Canadian Ashland Explorations Ltd. (1973): Seismic Reflection - Offshore Nova Scotia. Projects: 8624-C33-1E, 2E.
- Amoco Canada Petroleum Company Ltd. (1974): Interpretation of a Seismic Program on the Scotian Shelf. Projects: 8624-A4-18E/8627-A4-13DA.

Gulf of St. Lawrence

- Amoco Canada Petroleum Company Ltd. (1967-68): Seismic Interpretation - Gulf of St. Lawrence. Projects: 8624-A4-2E, 4E.
- Banner Petroleum Ltd. (1969): Marine Seismic Reflection Survey - Gulf of St. Lawrence. Project: 8624-B4-1E.

- Ballinderry Explorations Ltd. (1970): Combined Seagravity and Marine Magnetometer Survey - Gulf of St. Lawrence. Project: 8620-B6-1E.
- Scurry-Rainbow Oil Ltd. (1970): Gravity and Magnetometer Survey - Gulf of St. Lawrence. Project: 8620-S9-1E.
- SOQUIP (1970-71): Geophysical Report - Gulf of St. Lawrence. Project: 8624-S14-2E.
- Voyager Petroleum Ltd. (1970): Report on a Marine Seismic Survey in the Rich Point - Strait of Belle Isle Area. Project: 8624-V1-1E.
- Amoco Canada Petroleum Company Ltd. (1971): Reflection Seismic and Magnetometric Survey - Gulf of St. Lawrence. Projects: 8620-A4-5E/8627-A4-1DA.
- Canadian Homestead Oil Ltd. (1971): Marine Seismic Survey - Gulf of St. Lawrence. Project: 8624-C22-1E/8627-C22-1DA.
- Canadian Reserve Oil and Gas Ltd. (1971): Marine Seismic Survey - Gulf of St. Lawrence. Project: 8624-C12-1E.
- Chevron Standard Limited (1971): Summary of Exploration-Anticosti Area. Project: 8620-C4-4E.
- Hudson's Bay Oil and Gas Company Limited (1971): Marine Vibroseis Survey - Gulf of St. Lawrence. Project: 8620-H7-4E.
- Mobil Oil Canada Ltd. (1971): Interpretation and Field Report of Seismic Survey - Gulf of St. Lawrence. Project: 8624-M3-7E.
- SOQUIP (1971): Interpretation of a Reflection Seismic Program - Gulf of St. Lawrence. Project: 8624-S14-1E.
- SOQUIP (1971): Seismic Experimentation - Gulf of St. Lawrence. Project: 8629-S14-1E.
- Scurry-Rainbow Oil Ltd. (1972): Reinterpretation of Data - Anticosti Basin. Project: 8627-S9-1E.
- Scurry-Rainbow Oil Ltd. (1972): Gravity Survey - Anticosti Island. Project: 8629-S9-1E.

- Shell Canada Resources Limited (1972): Marine Seismic Survey - Gulf of St. Lawrence. Project: 8624-S6-11E.
- SOQUIP (1972): Seismic Reflection Program - Gulf of St. Lawrence. Project: 8624-S14-3E.
- SOQUIP (1972): Report on a Reconnaissance Marine Seismic Program - Gulf of St. Lawrence. Project: 8624-S14-4E.
- SOQUIP (1972): Seismic Reconnaissance - Gulf of St. Lawrence. Project: 8629-S14-2E.
- Mobil Oil Canada Ltd. (1973): Seismic Interpretation - Gulf of St. Lawrence. Project: 8624-M3-17E.
- Shell Canada Resources Limited (1973): Report on a Marine Seismic Survey - Gulf of St. Lawrence. Project: 8624-S6-13E.
- Gulf Oil Canada Limited (1974): Marine Seismic Survey - Offshore West Newfoundland. Project: 8620-G1-1E.
- SOQUIP (1974): Seismic Reflection Survey - Gulf of St. Lawrence. Project: 8624-S14-5E.
- SOQUIP (1974): Marine Seismic Survey - Gulf of St. Lawrence. Project: 8620-S14-2E.
- SOQUIP (1974): Acquisition et interprétations de données aeromagnétiques - Gulf of St. Lawrence. Project: 8621-S14-1E.
- Amoco Canada Petroleum Company Ltd. (1975): Geophysical Reprocessing - Gulf of St. Lawrence. Project: 8627-A4-16DA.
- SOQUIP (1976): Marine Seismic Survey - Anticosti Island. Project: 8620-S14-1E.
- Texaco Exploration Canada Ltd. (1970): Marine Reflection Seismic Program - Laurentian Channel. Projects: 8624-T7-6E/8627-T7-1DA.
- Texaco Exploration Canada Ltd. (1971): Marine Seismic Survey Report - Laurentian Channel. Projects: 8620-T7-5E/8627-T7-6DA, 8DA, 9E, 10E, 12DA, 14E, 15DA.
- Imperial Oil Ltd. (1972): Seismic and Sea Magnetic Survey. Project: 8620-J1-1E. Data on Laurentian Fan only.
- Imperial Oil Ltd. (1973): Magnetic and Gravity Survey. Project: 8620-J1-2E. Data on Laurentian Fan only.
- Texaco Exploration Canada Ltd. (1973): Seismic Gravity and Magnetic Survey - Laurentian Channel. Project: 8620-T7-7E.
- Texaco Exploration Canada Ltd. (1974): Seismic Reflection Survey - Laurentian Channel. Project: 8624-T7-11E.

Grand Banks

- Elf Oil Exploration and Production Canada Ltd. (1964): Report for an Aeromagnetic Survey Completed on the Grand Banks. Project: 8621-E4-1E.
- Elf Oil Exploration and Production Canada Ltd. (1967): Report on a Marine Reflection Survey - Grand Banks. Projects: 8624-E4-1E, 2E.
- Northern Oil Explorers Ltd. (1967): Technical Report on Seismic Marine Survey - Grand Banks. Project: 8624-N3-1E.
- Elf Oil Exploration and Production Canada Ltd. (1969): Interpretation of a Marine Seismic Survey - Grand Banks. Project: 8624-E4-3E.
- Elf Oil Exploration and Production Canada Ltd. (1970): Report for a Marine Seismic Survey-Grand Banks. Project: 8620-E4-1E.
- Chevron Standard Limited (1971): Marine Seismic Survey - Green Bank. Project: 8620-C4-3E.
- Elf Oil Exploration and Production Canada Ltd. (1971): Seismic Reflection - Grand Banks Area. Project: 8624-E4-4E.

Sydney Basin

- Siebens Oil and Gas Ltd. (1971): Marine Seismic Program - Burgeo Bank Area - Newfoundland. Project: 8624-S1-1E.
- Transalta Oil and Gas Ltd. (1973): Seismic Reflection-Burgeo Bank. Project: 8624-T13-2E.

Laurentian Channel

- Texaco Exploration Canada Ltd. (1969): Marine Reflection Seismic Survey - Laurentian Channel. Project: 8624-T7-4E.

- Elf Oil Exploration and Production Canada Ltd. (1975): Interpretation of Seismic Data-Grand Banks. Project: 8627-E4-7DA.
- Pacific Petroleum Ltd. (1971): Marine Reflection Survey-Grand Banks. Project: 8624-P11-1E.
- Chevron Standard Limited (1972): Aero-magnetic Survey - Grand Banks. Projects: 8621-C4-2E/8627-C4-5DA, 13DA.
- Austin Exploration Ltd. (1973): Seismic Reflection - Grand Banks. Project: 8624-A12-1E.
- Elf Oil Exploration and Production Canada Ltd. (1973): Report on a Marine Seismic Survey in the Grand Banks Area. Project: 8624-E4-5E.
- Bow Valley Industries Ltd. (1974): Seismic Report - Grand Banks. Project: 8624-B11-2E.
- Altana Exploration Ltd. (1975): Seismic Reflection - Grand Banks. Project: 8624-A3-1E.
- Mobil Oil Canada Ltd. (1973): Seismic Reflection Survey - N.E. Newfoundland. Project: 8620-M3-19E.
- Houston Oils Limited (1974): Marine Seismic Survey - Offshore Newfoundland. Project: 8624-H9-1E.
- Western Decalta Petroleum Ltd. (1974): Evaluation from Seismograph Data, North-east Newfoundland. Project: 8620-W6-2E.
- Mobil Oil Canada Ltd. (1975): Seismic Reflection Survey - N.E. Newfoundland. Project: 8624-M3-27E.
- Western Decalta Petroleum Ltd. (1975): Geophysical Survey - Offshore Newfoundland. Project: 8620-W6-3E.
- Mobil Oil Canada Ltd. (1976): Marine Seismic Reflection - N.E. Newfoundland. Project: 8624-M3-29E.

Labrador

N.E. Newfoundland

- Elf Oil Exploration Ltd. (1968): Logistic and Technical Report on a Marine Seismic Refraction Survey-Offshore Newfoundland. Projects: 8625-E4-1E, 2E.
- Mobil Oil Canada Ltd. (1971): Marine Seismic Survey - N.E. Newfoundland. Project: 8620-M3-11E.
- Shell Canada Limited (1971): Geophysical Report-Southeast Newfoundland. Projects: 8624-S6-7E/8627-S6-2DA.
- Western Decalta Petroleum Ltd. (1971): Geophysical and Geological Evaluation of Newfoundland North. Project: 8625-W6-1E.
- Canadian Export Gas and Oil Ltd. (1970): Seismic Survey-Labrador Shelf. Project: 8624-C2-1E.
- Hudson's Bay Oil and Gas Company Limited (1971): Magnetic and Gravity Compilation and Interpretation - Labrador Sea. Project: 8620-H7-3E.
- Hudson's Bay Oil and Gas Company Limited (1975): Marine Seismic and Gravity Survey - Labrador. Project: 8620-H7-5E.
- Western Decalta Petroleum Ltd. (1975): Evaluation from Seismograph Data, Labrador Sea. Project: 8620-W6-1E.
- Westcoast Petroleum Ltd. (1976): Marine Seismic Survey - Labrador Shelf. Project: 8624-W2-1E.

RESEARCH REPORTS

Some 65 research projects, funded and carried out by industry in connection with oil and gas permit acreage in areas of the Canadian offshore, have been approved under Section 48 of the Canada Oil and Gas Land Regulations. These projects mainly concern ice, safety and environmental matters especially as they relate to the drilling of offshore wells. These reports are normally released from confidential status after five years.

Information and materials on the following research projects have been released from confidential status:

HUDSON BAY

- Aquitaine Company of Canada Ltd. (1970): Climatology and Oceanography - Hudson Bay. Project: 8740-A11-1E.

EAST COAST

Grand Banks

- Amoco Canada Petroleum Company Ltd. (1964): Report of Investigation of Drilling Platform Motions - Grand Banks. Project: 8640-A4-1E.
- Amoco Canada Petroleum Company Ltd. (1964): Sample of Dredging and Piston Coring - Grand Banks. Project: 8640-A4-2E.
- Amoco Canada Petroleum Company Ltd. (1964): Meteorological and Oceanographic Factors Affecting Offshore Petroleum Operations - Grand Banks. Project: 8640-A4-3E.
- Amoco Canada Petroleum Company Ltd. (1967): Weather Data Collection - Grand Banks. Project: 8640-A4-8E.
- Amoco Canada Petroleum Company Ltd. (1969): Soil Sampling - Grand Banks. Project: 8640-A4-9E.

- Amoco Canada Petroleum Company Ltd. (1971): Iceberg Dynamics - Grand Banks. Project: 8640-A4-5E.
- Amoco Canada Petroleum Company Ltd. (1971): Five Year Weather Hindcast - Grand Banks. Project: 8640-A4-6E.
- Amoco Canada Petroleum Company Ltd. (1971): Iceberg Drift Predictions - Grand Banks. Project: 8640-A4-10E.
- Amoco Canada Petroleum Company Ltd. (1971): Soil Borings - Grand Banks. Project: 8640-A4-11E.
- Elf Oil Exploration and Production Canada Ltd. (1971): Anchor Testing Report - Grand Banks. Project: 8640-E4-2E.
- Imperial Oil Ltd. (1971): Marine Reconnaissance Survey and Technical Feasibility for Installing a Pipeline from Grand Banks to Newfoundland. Project: 8640-J1-1E.
- Amoco Canada Petroleum Company Ltd. (1972): Aerial Ice Survey - Grand Banks. Project: 8640-A4-7E.
- Elf Oil Exploration (1973): Anchor Test Report for Elf et al Emerillon C-56 - Grand Banks. Project: 8640-E4-3E.
- Imperial Oil Limited (1973): Otter Boards and Trawlers - Grand Banks. Project: 8640-J1-2E.

Labrador Shelf

- Amoco Canada Petroleum Company Ltd. (1971): North Atlantic Ice Survey - Labrador Shelf. Project: 8640-A4-4DA.
- Total Eastcan Exploration Ltd. (1971): Iceberg Impact Effects on Drillship - Labrador Shelf. Project: 8640-E2-1E.
- Total Eastcan Explorations Ltd. (1971): Report on Environmental Research - Labrador Shelf. Project: 8640-E2-2E.

- B.P. Exploration Canada Ltd. (1972): Environmental Conditions - Labrador Shelf. Project: 8640-B3-1E.
- B.P. Exploration Canada Ltd. (1973): Effects of Ice Floe Impact on Semi-Submersible Drilling Vessels - Labrador Shelf. Project: 8640-B3-2E.
- B.P. Exploration Ltd. (1973): Survey Programs of Four Proposed Well Sites - Labrador Shelf. Project: 8640-B3-3E.
- Imperial Oil Limited (1977): Eastern Arctic Marine Environmental Studies (EAMES) Ocean Current Meter Program - Labrador/Davis Strait. Project: 8640-J1-7E/8640-J1-3E.
- Total Exploration Limited (1973): Meteorological and Oceanographic Research - Offshore Labrador. Project: 8640-E2-3E.

Scotian Shelf

- Shell Canada Resources Ltd. (1970): Results of 1970 Satellite Offshore Survey Positioning Test - Scotian Shelf. Project: 8640-S6-1E.
- Shell Canada Resources Ltd. (1971): Nova Scotia Environment Report - Scotian Shelf. Project: 8640-S6-2P.
- Shell Canada Resources Ltd. (1973): Experimental Testing of New Seismic Equipment - Sydney Basin, N.S. Project: 8640-S6-3E.

APPENDIX B

EXPLORATORY WELLS DRILLED IN THE CANADIAN OFFSHORE

Data on recent and current wells is subject to minor change















ABBREVIATIONS

RT - Rotary Table
KB - Kelly Bushing
GL - Ground Level
P & A - Plugged and Abandoned
P & S - Plugged and Suspended
TD - Total Depth

WELL SYMBOLS

○ Drilling
⊕ Plugged & Abandoned
⚡ Significant Gas
⚡ Gas Show
● Significant Oil
⊕ Oil Show
⚡ Significant Oil & Gas
⊕ Plugged & Suspended
● Significant Oil, Suspended
⚡ Oil and Gas Show

WEST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED
 * INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Shell Anglo Prometheus H-68	West of Van- couver Island	48° 37' 19.57" 125° 39' 06.54"	Sedco 135-F	67-06-11 67-08-09	34.4 m 55.2	2 335.4 m P & A 
Shell Anglo Pluto I-87	West of Van- couver Island	48° 56' 36.73" 125° 57' 01.30"	Sedco 135-F	67-08-11 67-10-12	32.9 60	3 726.2 P & A 
Shell Anglo Zeus I-65	West of Van- couver Island	48° 54' 34.25" 126° 09' 09.93"	Sedco 135-F	67-11-07 68-02-05	34.4 98.5	3 042.2 P & A 
Shell Anglo Zeus D-14	West of Van- couver Island	48° 53' 01.0" 126° 02' 59.8"	Sedco 135-F	68-02-24 68-03-31	34.1 79.9	2 433.5 P & A 
Shell Anglo Tyee N-39	Hecate Strait	53° 18' 54.51" 131° 20' 21.42"	Sedco 135-F	68-04-07 68-05-19	29.3 27.4	3 459.5 P & A 
Shell Anglo Sockeye B-10	Hecate Strait	52° 49' 08.53" 131° 00' 44.19"	Sedco 135-F	68-05-21 68-07-22	35.4 31.1	4 771.9 P & A 
Shell Anglo Sockeye E-66	Hecate Strait	52° 45' 24.62" 130° 55' 19.44"	Sedco 135-F	68-07-23 68-08-12	34.7 55.8	2 786.5 P & A 
Shell Anglo Auklet G-41	Hecate Strait	52° 20' 16.12" 130° 36' 32.77"	Sedco 135-F	68-08-16 68-08-29	34.7 169.5	2 370.4 P & A 
Shell Anglo Osprey D-36	Queen Charlotte Sound	51° 35' 06.20" 129° 20' 47.65"	Sedco 135-F	68-09-01 68-09-17	34.1 58.5	2 530.4 P & A 
Shell Anglo Harlequin D-86	Queen Charlotte Sound	51° 55' 03.58" 129° 58' 12.35"	Sedco 135-F	68-09-22 68-11-01	34.1 139.9	3 240.9 P & A 
Shell Anglo Apollo J-14	West of Van- couver Island	49° 23' 34.60" 127° 02' 04.58"	Sedco 135-F	68-11-23 69-01-23	34.1 141.4	3 094.3 P & A 
Shell Anglo Cygnet J-100	West of Van- couver Island	48° 19' 42.3" 125° 43' 03.0"	Sedco 135-F	69-01-26 69-02-20	34.1 147.8	2 459.7 P & A 
Shell Anglo South Coho I-74	Hecate Strait	53° 33' 32.6" 131° 25' 48.9"	Sedco 135-F	69-03-12 69-04-05	35.4 21.3	2 780.1 P & A 
Shell Anglo Murrelet L-15	Hecate Strait	52° 24' 41.3" 130° 47' 38.0"	Sedco 135-F	69-04-13 69-05-05	33.8 110.9	2 919.4 P & A 

HUDSON BAY REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Aquitaine et al Hudson Walrus A-71	Hudson Bay	58° 30' 02.05" 87° 10' 48.55"	Wodeco II	69-08-08 69-10-18	9.2 m 178.9	1 196.6 m P & S
Re-Entry (1974)			Pentagone P-82	74-09-07 74-09-17	23.5 178.9	1 196.6 P & A
Aquit et al Narwhal South O-58*	Hudson Bay	58° 07' 59.76" 84° 08' 02.96"	Pentagone P-82	74-08-01 74-09-01	23.5 153.3	1 323.1 P & A
Aquit et al Polar Bear C-11	Hudson Bay	58° 30' 04.35" 86° 47' 18.49"	Pentagone P-82	74-09-21 74-10-20	23.5 168.6	1 575.8 P & A

NOTE: Premium-Homestead Akpatok Island F-26 was drilled on Akpatok Island in Ungava Bay in 1969 under the administration of the Department of Energy, Mines and Resources. The well was P & A at a total depth of 370.9 m KB.
















EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE
















Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Pan Am-IOE Tors Cove D-52*	Grand Banks	44° 11' 14" 52° 23' 42"	Glomar Sirte	66-06-07 66-08-12	9.4 m 89.3	1 473.4 m P & A
Pan-Am-IOE Grand Falls H-09*	Grand Banks	45° 28' 19" 52° 00' 03"	Glomar Sirte	66-08-16 66-10-22	9.4 78	1 600.2 P & A
Mobil Sable Island C-67	Scotian Shelf	43° 56' 04.9" 59° 55' 01.4"	Bawden Rig 18	67-06-07 68-01-02	8.2 KB 3.9 GL	4 604.3 P & A
Shell Onondaga E-84	Scotian Shelf	43° 43' 16.14" 60° 13' 17.41"	Sedneth 1	69-09-01 69-11-11	25.9 57.9	3 988.3 P & A
Shell Oneida O-25	Scotian Shelf	43° 14' 57.36" 61° 33' 36.49"	Sedneth 1	69-11-16 70-02-10	25.9 82.3	4 119.9 P & A

EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE
















Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Shell Naskapi N-30*	Scotian Shelf	43° 29' 46.78" 62° 33' 59.54"	Sedneth 1	70-02-16 70-03-19	26 m 95.1	2 205.2 m P & A 
Shell Mohawk B-93	Scotian Shelf	42° 42' 10.52" 64° 43' 53.50"	Sedco H	70-05-03 70-05-23	31.4 117	2 126 P & A 
Shell Mic Mac J-77	Scotian Shelf	44° 36' 42.81" 59° 26' 10.86"	Sedneth 1	70-03-25 70-05-24	26 62.8	3 886.2 P & A 
Shell Abenaki L-57	Scotian Shelf	44° 16' 34.49" 59° 53' 39.64"	Sedco H	70-05-28 70-07-06	31.4 108.8	2 178.4 P & A 
Shell Missisauga H-54	Scotian Shelf	44° 23' 20.39" 59° 22' 47.56"	Sedneth 1	70-05-26 70-07-20	25.9 102.1	4 202.3 P & A 
HB-Fina Northumberland Strait F-25	Gulf of St. Lawrence	46° 04' 23.8" 62° 03' 45.5"	Wodeco II	70-04-14 70-06-23	9.4 KB 29.9	3 010.2 P & A 
HB-Fina East Point E-49	Gulf of St. Lawrence	46° 38' 23.09" 61° 37' 26.07"	Wodeco II	70-06-26 70-11-10	9.8 KB 62.8	3 526.2 P & S
Re-Entry (1974)			Sedco H	74-10-09 74-11-10	29.9 62.8	3 546.3 P & A 
Shell Onondaga O-95	Scotian Shelf	43° 44' 48.09" 60° 13' 52.60"	Sedco H	70-07-09 70-08-16	31.4 53.9	3 314.4 P & A 
Shell Huron P-96*	Scotian Shelf	44° 35' 47.10" 58° 28' 50.63"	Sedneth 1	70-07-22 70-08-27	25.9 57.9	3 018.4 P & A 
Shell Iroquois J-17	Scotian Shelf	44° 26' 31.37" 59° 47' 12.28"	Sedco H	70-08-18 70-09-06	31.4 59.4	2 086.4 P & A 
Shell Cree E-35	Scotian Shelf	43° 44' 20.70" 60° 35' 55.89"	Sedco H	70-09-08 70-11-03	31.4 53.3	3 983.7 P & A 
Shell Mic Mac H-86	Scotian Shelf	44° 35' 27.71" 59° 27' 03.12"	Sedneth 1	70-08-31 70-12-02	25.9 54.3	4 785.4 P & A 
Shell Wyandot E-53*	Scotian Shelf	44° 52' 20.70" 59° 23' 54.05"	Sedco H	70-11-07 70-12-14	31.4 121	3 049.5 P & A 
Shell Argo F-38*	Scotian Shelf	45° 27' 23.22" 58° 50' 24.34"	Sedco H	70-12-17 71-02-19	31.4 71.6	3 386.3 P & A 
Shell Fox I-22*	Scotian Shelf	45° 21' 33.60" 59° 33' 16.00"	Sedco H	71-02-20 71-03-03	31.4 83.8	829.7 P & A 

EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED
 * INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Shell Abenaki J-56	Scotian Shelf	44° 15' 44.95 59° 53' 03.02"	Sedneth 1	70-12-04 71-03-13	25.9 m 106.7	4 569.3 m P & A 
Shell Erie D-26*	Scotian Shelf	44° 55' 03.52" 59° 34' 29.82"	Sedneth 1	71-03-16 71-04-11	25.9 98.1	2 375.9 P & A 
Mobil-Tetco Esperanto K-78*	Scotian Shelf	44° 47' 31.26" 58° 11' 19.24"	Sedco H	71-03-09 71-04-24	31.4 68.6	3 540.3 P & A 
Shell Crow F-52*	Scotian Shelf	45° 21' 24.23" 59° 08' 22.73"	Sedneth 1	71-04-12 71-04-27	25.9 94.5	1 506.6 P & A 
Amoco-IOE Eider M-75*	Grand Banks	45° 34' 54.97" 51° 56' 41.52"	Sedco I	71-04-18 71-07-09	29.9 77.7	3 530.2 P & A 
Shell Sauk A-57*	Scotian Shelf	44° 16' 05.70" 58° 37' 44.41"	Sedneth 1	71-04-30 71-07-10	25.9 60	4 575 P & A 
Mobil-Tetco Dauntless D-35*	Scotian Shelf	44° 44' 08.26" 57° 20' 46.62"	Sedco H	71-04-26 71-07-16	31.4 69.2	4 741.2 P & A 
Shell Chippewa L-75*	Scotian Shelf	44° 34' 35.87" 58° 41' 50.54"	Sedneth 1	71-07-12 71-08-02	24.7 67.7	2 125.9 P & A 
Shell Onondaga F-75	Scotian Shelf	43° 44' 17.84" 60° 11' 36.25"	Sedco H	71-07-28 71-09-07	31.4 56.4	3 890.8 P & A 
Amoco-IOE Murre G-67*	Grand Banks	46° 06' 20.42" 49° 09' 38.07"	Sedco I	71-07-14 71-09-20	29.9 64.6	3 337.3 P & A 
Tenneco et al Leif E-38	Labrador Shelf	54° 17' 29.87" 55° 05' 52.17"	Typhoon	71-08-13 71-10-08	12.2 169.5	1 084.2 P & S
Re-Entry (1973)			Pelican	73-07-25 73-08-01	12.2 167.6	1 084.2 P & A 
Shell Triumph P-50	Scotian Shelf	43° 39' 51.62" 59° 51' 02.36"	Sedneth 1	71-08-04 71-10-10	25.9 90.2	4 595.4 P & A 
Mobil-Tetco Sable Island E-48	Scotian Shelf	43° 57' 20.35" 60° 07' 24.44"	Bawden Rig 14	71-05-28 71-10-15	6.4 0	3 602.7 P & S 
Shell Eurydice P-36*	Scotian Shelf	45° 25' 47.30" 60° 04' 46.97"	Sedco H	71-09-15 71-10-24	29.9 164.6	2 965.1 P & A 
Shell Chippewa G-67*	Scotian Shelf	44° 36' 20.50" 58° 39' 44.62"	Sedco H	71-10-28 71-12-18	29.9 70.1	3 669.8 P & A 















EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Elf Hermine E-94*	Grand Banks	45° 23' 29.30" 54° 29' 54.71"	Sedneth 1	71-10-22 71-12-31	25.9 m 82.6	3 267.5 m P & A 
Amoco-IOE Puffin B-90*	Grand Banks	44° 39' 12.73" 53° 42' 28.35"	Sedco I	71-09-29 72-01-05	29.9 106.7	4 701.5 P & A 
Shell Mohican I-100	Scotian Shelf	42° 59' 39.04" 62° 28' 51.32"	Sedco H	71-12-27 72-03-10	29.9 153.3	4 393.4 P & A 
Amoco-Imp Petrel A-62*	Grand Banks	44° 51' 06.29" 52° 54' 15.47"	Sedco I	72-01-10 72-03-01	29.9 85.9	1 945.8 P & A 
Shell Marmora C-34	Scotian Shelf	43° 43' 13.79" 60° 05' 21.93"	Sedneth 1	72-01-15 72-03-31	25.9 57.6	4 037.9 P & A 
Shell Primrose N-50	Scotian Shelf	43° 59' 48.43" 59° 06' 51.63"	Sedco H	72-03-14 72-04-21	29.9 90.8	1 713.6 P & A 
Amoco-Imp Gannet O-54*	Grand Banks	45° 03' 54.56" 52° 38' 09.72"	Sedco I	72-03-06 72-04-24	29.9 99.9	3 048 P & A 
Amoco-Imp Shearwater J-20	Grand Banks	44° 29' 36.22" 52° 46' 53.31"	Sedneth 1	72-04-11 72-06-18	25.9 98.1	2 321.4 P & A 
Mobil-Tetco Sable Island O-47	Scotian Shelf	43° 56' 56.70" 60° 06' 38.08"	Bawden Rig 14	71-12-13 72-07-01	7 KB 1.8 GL	4 198.6 P & S 
Shell-Mobil- Tetco Eagle D-21	Scotian Shelf	43° 50' 06.73" 59° 34' 09.21"	Sedco H	72-04-22 72-07-02	29.9 51.2	4 660.4 P & A 
Amoco-Imp Bittern M-62*	Grand Banks	44° 41' 55.85" 51° 10' 14.29"	Sedco I	72-04-27 72-07-29	29.9 68.9	4 780.2 P & A 
Amoco-Imp Kittiwake P-11*	Grand Banks	44° 40' 49.43" 53° 31' 45.65"	Sedneth 1	72-06-20 72-08-03	25.9 95.7	3 550 P & A 
Amoco-Imp Jaeger A-49*	Grand Banks	44° 28' 01.51" 50° 21' 00.65"	Sedco I	72-08-16 72-08-27	25.9 57.9	938.4 P & A 
Mobil-Tetco Sable Island 1-H-58	Scotian Shelf	43° 57' 27" 60° 07' 37"	Bawden Rig 9	72-06-03 72-08-27	10.7 KB 1.8 GL	3 039.2 P & S 
Mobil-Tetco- Thebaud P-84	Scotian Shelf	43° 53' 59.53" 60° 12' 19.34"	Sedco H	72-07-08 72-10-13	28.6 25.9	4 114.8 P & S 














EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Amoco-Imp- Cormorant N-83*	Grand Banks	46° 02' 45.43" 48° 58' 02.07"	Sedco I	72-08-30 72-11-21	25.9 m 65.8	3 160.5 m P & A 
Amoco-Imp- Heron H-73*	Grand Banks	44° 02' 26.65" 52° 25' 40.58"	Sedneth 1	72-08-06 72-12-05	25.9 105.5	3 657.6 P & A 
Mobil-Gulf Adolphus 1-K-41	Grand Banks	47° 00' 39.22" 48° 22' 04.29"	Sedco J	72-11-16 72-12-09	31.4 113.9	1 239 P & A 
Mobil-Tetco- Sable Island 2-H-58	Scotian Shelf	43° 57' 27.14" 60° 07' 37.75"	Bawden Rig 9	72-10-06 72-12-31	10.6 KB 1.8 GL	2 758.4 P & S 
Mobil-Gulf Adolphus 2-K-41	Grand Banks	47° 00' 40.56" 48° 22' 06.47"	Sedco J	72-12-17 73-01-08	31.4 114.3	1 239 P & S
Re-Entry (1973)			Sedco J	73-07-27 73-09-26	31.4 114.3	3 657.6 P & A 
Amoco-Imp Gull F-72*	Grand Banks	44° 11' 25.18" 52° 26' 32.30"	Sedco I	72-12-01 73-01-12	29.9 93.6	2 500.8 P & A 
Amoco-Imp Merganser I-60*	Grand Banks	44° 49' 36.11" 52° 22' 48.66"	Sedneth 1	72-12-07 73-01-17	25.9 78.6	1 903.5 P & A 
Shell Primrose A-41	Scotian Shelf	44° 00' 05.68" 59° 06' 18.26"	Sedco H	72-10-15 73-01-27	29.9 109.7	3 616.5 P & A 
Shell Primrose F-41	Scotian Shelf	44° 00' 29.55" 59° 07' 06.52"	Sedco H	73-01-30 73-03-05	29.9 68.6	2 592.3 P & A 
Mobil-Tetco Sable Island 3-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Bawden Rig 9	73-01-01 73-03-21	10.6 KB 1.8 GL	3 739.9 P & S 
Amoco-Imp Skelly Tern A-68*	Grand Banks	44° 27' 13.41" 53° 09' 00.84	Sedco I	73-01-17 73-04-16	29.9 114.6	4 188.9 P & A 
Shell Marmora P-35	Scotian Shelf	43° 44' 59.36" 60° 04' 47.58"	Sedco H	73-03-06 73-04-21	29.9 53.3	4 092.9 P & A 
Mobil-Tetco Bluenose G-47	Scotian Shelf	44° 06' 20.79" 59° 21' 27.35"	Sedco J	73-01-25 73-04-25	29.9 81.4	4 587.2 P & A 
Amoco-Imp-Skelly Mallard M-45*	Grand Banks	44° 14' 46.16" 52° 07' 22.39"	Sedneth 1	73-02-26 73-05-02	25.9 84.7	3 521.9 P & A 















EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Shell Tuscarora D-61*	Scotian Shelf	44° 40' 10.35" 58° 55' 10.85"	Sedco H	73-04-23 73-06-02	29.9 m 78.9	3 939.5 m P & A 
Amoco-Imp-Skelly Sandpiper J-77	Grand Banks	45° 36' 38.44" 51° 41' 01.94"	Sedco I	73-05-22 73-06-15	29.9 90.5	803.1 P & A 
Amoco-Imp-Skelly Sandpiper 2-J-77*	Grand Banks	45° 36' 39.31" 51° 41' 00.55"	Sedco I	73-06-15 73-06-20	29.9 90.2	286.5 P & S
Re-Entry (1973)			Sedneth 1	73-08-20 73-10-30	25.9 90.2	3 525.3 P & A 
Amoco-Imp-Skelly Razorbill F-54*	Grand Banks	45° 13' 24.94" 52° 08' 22.46"	Sedco I Sedneth 1	73-04-19 73-07-04	29.9 69.1	3 135.2 P & A 
Amoco-Imp-Skelly Heron J-72*	Grand Banks	44° 01' 33.74" 52° 26' 08.62"	Sedco I	73-06-23 73-07-08	29.9 109.7	1 382.3 P & A 
Mobil-Tetco Cohasset D-42	Scotian Shelf	43° 51' 06.52" 60° 37' 13.89"	Sedco J	73-04-27 73-07-16	31.4 41.1	4 427.2 P & S 
Mobil-Tetco Sable Island 4-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Bawden Rig 9	73-03-22 73-08-11	10.6 KB 1.8 GL	4 519.3 P & S 
Amoco-Imp-Skelly Osprey H-84	Grand Banks	44° 43' 28.79" 49° 27' 22.92"	Sedneth 1	73-07-09 73-08-16	25.9 60.9	3 474 P & A 
Eastcan et al Leif M-48	Labrador Shelf	54° 17' 45.92" 55° 07' 20.17"	Pelican	73-08-01 73-08-29	12.2 165.2	1 879.1 P & A 
Shell Amoco Cap Rouge F-52*	Gulf of St. Lawrence	47° 11' 20.29" 61° 08' 15.24"	Sedco H	73-06-08 73-09-03	31.1 56.7	4 932.3 P & A 
Amoco-Imp-Skelly Egret K-36*	Grand Banks	46° 25' 37.88" 48° 50' 22.38"	Sedco I	73-07-12 73-09-10	29.9 67.9	3 352.8 P & A 
Mobil-Tetco Sable Island 5-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Bawden Rig 9	73-08-15 73-09-18	10.6 KB 1.8 GL	2 478 P & S 
Eastcan et al Bjarni H-81	Labrador Shelf	55° 30' 29.35" 57° 42' 05.52"	Pelican	73-08-29 73-10-14	12.2 138.9	2 514.9 P & S
Re-Entry (1974)			Pelican	74-10-03 74-10-25	12.2 138.9	2 514.9 P & A 
















EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Amoco-Imp-Skelly Spoonbill D-30*	Grand Banks	45° 49' 06.47" 49° 04' 06.18"	Sedco I	73-09-12 73-10-14	29.9 m 65.2	2 757.2 m P & A 
Mobil-Tetco Sable Island 6-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Bawden Rig 9	73-09-22 73-10-18	10.6 KB 1.8 GL	2 355.2 P & A 
Amoco-Imp-Skelly Pelican J-49*	Grand Banks	45° 28' 35.17" 52° 36' 41.71"	Sedco I	73-10-19 73-11-08	29.9 91.4	1 328.9 P & A 
Shell-Soquip- Amoco Bradelle L-49*	Gulf of St. Lawrence	47° 58' 31.95" 63° 07' 08.82"	Sedco H	73-09-07 73-11-28	29.9 56.7	4 420.5 P & A 
Mobil-Gulf Flying Foam I-13	Grand Banks	47° 02' 41.96" 48° 46' 30.98"	Sedco J	73-09-26 73-11-28	29.9 90.8	3 683.2 P & A 
Amoco-Imp-Skelly Brant P-87*	Grand Banks	44° 16' 59.91" 52° 42' 19.48"	Sedco I	73-11-14 73-12-22	29.9 98.8	3 587.8 P & A 
Mobil-Gulf Bonniton H-32*	Grand Banks	45° 51' 26.79" 48° 19' 31.76"	Sedco J	73-12-02 74-01-02	29.9 101.8	3 048 P & A 
Elf et al Emerillon C-56*	Grand Banks	45° 15' 04.79" 54° 23' 16.85"	Sedco H	73-12-07 74-01-25	29.9 119.8	3 276.6 P & A 
Union et al Shell Ojibwa E-07*	Scotian Shelf	43° 46' 20.44" 61° 46' 14.42"	Sedco H	74-02-04 74-02-28	29.9 75.6	2 329.6 P & A 
Amoco-Imp-Skelly Coot K-56*	Grand Banks	45° 45' 41.52" 52° 08' 32.13"	Sedco I	73-12-24 74-03-21	29.9 79.9	3 535.7 P & S
Re-Entry (1974)			Sedco I	74-07-10 74-07-12	29.9 79.8	3 535.7 P & A 
Amoco-Imp-Skelly Twillick G-49*	Grand Banks	44° 18' 25.60" 51° 21' 32.10"	Sedco I	74-03-31 74-04-14	29.9 74.4	1 301.5 P & A 
Mobil-Tetco- Texaco Citnalta I-59	Scotian Shelf	44° 08' 42.58" 59° 37' 32.11"	Sedco J	74-02-04 74-04-29	29.9 94.5	4 575 P & S 
Shell Demascota G-32	Scotian Shelf	43° 41' 27.2" 60° 49' 54.00"	Sedco H	74-03-01 74-05-20	29.9 54.3	4 672.3 P & A 
Union et al Sambro I-29*	Scotian Shelf	43° 38' 35.04" 62° 48' 17.04"	Sedco H	74-05-23 74-06-27	29.9 193.5	3 069.6 P & A 













EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

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Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Amoco-Imp-Skelly Carey J-34*	Grand Banks	45° 23' 32.42" 52° 35' 02.67"	Sedco I	74-04-17 74-07-06	29.9 m 100.6	3 689.3 m P & A 
Union et al Jason C-20*	Scotian Shelf	45° 29' 05.45" 58° 32' 28.27"	Sedco H	74-07-03 74-07-22	29.9 112.8	2 482.9 P & A 
Union et al Hercules G-15*	Scotian Shelf	45° 34' 20.65" 58° 47' 13.06"	Sedco H	74-07-23 74-08-01	29.9 115.8	1 081.1 P & A 
Texaco-Shell Intrepid L-80	Scotian Shelf	43° 49' 35.78" 59° 56' 43.82"	Sedco J	74-05-18 74-08-15	31.4 43.6	4 162 P & A 
Amoco-Imp-Skelly Egret N-46*	Grand Banks	46° 25' 56.14" 48° 51' 47.35"	Sedco I	74-07-27 74-08-29	29.9 67.7	2 743.2 P & A 
Murphy et al North Sydney P-05	Scotian Shelf	46° 34' 46.24" 59° 45' 01.65"	Sedco H	74-08-10 74-09-07	29.9 62.8	1 660.9 P & A 
Union et al Montagnais I-94*	Scotian Shelf	42° 53' 40.71" 64° 13' 46.51"	Sedco H	74-09-12 74-09-29	29.9 112.8	1 645.9 P & A 
BP-Columbia Bonavista C-99	N.E. Newfound- land Shelf	49° 08' 05.19" 51° 14' 25.13"	Havdrill	74-06-26 74-10-03	12.2 329.2	3 685 P & S
Re-Entry (1975)			Havdrill	75-06-12 75-08-12	12.9 329.2	3 778.9 P & A 
Eastcan et al Gudrid H-55	Labrador Shelf	54° 54' 30" 55° 52' 32"	Pelican	74-07-14 74-10-04	12.2 299.3	2 837.9 P & S 
Mobil-Gulf Dominion O-23	Grand Banks	47° 22' 49.14" 48° 18' 27.90"	Sedco J	74-08-27 74-10-21	29.9 161.5	3 997.8 P & A 
Amoco-Imp-Skelly Skua E-41*	Grand Banks	45° 20' 23.23" 48° 52' 26.26"	Sedco I	74-08-31 74-10-21	29.9 82.9	3 238.8 P & A 
Mobil-Gulf Adolphus D-50	Grand Banks	46° 59' 03.06" 48° 22' 28.86"	Sedco J	74-10-23 75-01-05	29.9 114.9	3 685.9 P & A 
Amoco-Imp-Skelly Phalarope P-62	Grand Banks	45° 11' 49.25" 51° 21' 14.40"	Sedco I	74-10-24 75-01-05	29.9 73.2	3 161.7 P & A 
Mobil-Tetco-Gulf Adventure F-80*	Scotian Shelf	45° 19' 27.54" 57° 56' 22.80"	Sedco J	75-01-13 75-02-22	29.9 98.8	1 999.2 P & A 
Mobil-Gulf Chinampas N-37	Bay of Fundy	44° 56' 51.58" 66° 35' 22.68"	Sedco J	75-03-04 75-05-08	29.9 65.8	3 661.6 P & A 

EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED

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Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Mobil-Texaco Sachem D-76	Scotian Shelf	44° 35' 09.22" 57° 41' 58.29"	Sedco J	75-05-17 75-07-30	29.9 m 58.5	4 878.6 m P & A 
Eastcan et al Freydis B-87	Labrador Shelf	53° 56' 13.39" 54° 42' 30.75"	Pelican	75-07-03 75-08-08	12.5 178.6	2 314 P & A 
Eastcan et al Karlsefni A-13	Labrador Shelf	58° 52' 15.03" 61° 46' 42.08"	Pelican	75-08-12 75-09-25	12.5 174.7	3 283.9 P & S
Re-Entry (1976)			Pelican	76-09-13 76-10-25	12.5 174.7	4 148.9 P & A 
Eastcan et al Snorri J-90	Labrador Shelf	57° 19' 44.52" 59° 57' 44.37"	Sedco 445	75-07-28 75-10-09	11.3 140.8	3 209.8 P & S
Re-Entry (1976)			Pelican	76-08-31 76-09-08	12.5 140.8	3 209.8 P & S 
Mobil-Gulf-Imp Cumberland B-55	N.E. Newfound- land Shelf	48° 24' 12.57" 50° 07' 58.13"	Sedco J	75-08-09 75-10-21	29.9 194.8	4 136.4 P & A 
BP-Columbia et al Indian Harbor M-52	Labrador Shelf	54° 21' 51.34" 54° 23' 51.81"	Havdrill	75-08-21 75-10-23	12.9 197.8	2 372.3 P & S
Re-Entry (1976)			Sedco J	76-09-05 76-11-06	29.9 197.8	3 958.1 P & A 
Eastcan et al Cartier D-70	Labrador Shelf	54° 39' 02.39" 55° 40' 29.90"	Pelican	75-09-27 75-10-31	12.5 309.9	1 926.9 P & A 
Shell Onondaga B-96	Scotian Shelf	43° 45' 08.23" 60° 14' 09.63"	Sedco H	76-01-12 76-03-21	29.9 60.4	3 757.6 P & A 
Petro-Canada- Shell Mic Mac D-89	Scotian Shelf	44° 38' 08.86" 59° 28' 18.93"	Sedco H	76-03-26 76-05-04	29.9 85.3	3 261.4 P & A 
Petro-Canada- Mobil Hesper I-52	Scotian Shelf	44° 41' 40.33" 57° 52' 32.24"	Sedco H	76-05-08 76-06-05	29.9 42.1	2 804.2 P & A 
Shell et al North Sydney F-24	Scotian Shelf	46° 33' 23.13" 59° 48' 45.47"	Sedco H	76-06-09 76-06-14	29.9 59.7	1 706.8 P & A 
Eastcan et al Cabot G-91	Labrador Shelf	59° 50' 20.11" 61° 44' 04.00"	Petrel	76-07-31 76-08-29	29.9 60.4	490.1 P & A 

EAST COAST REGION: ALL WELL HISTORY REPORTS HAVE BEEN RELEASED
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Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status	
Petro-Canada- Shell Penobscot L-30	Scotian Shelf	44° 09' 43.55" 60° 04' 09.33"	Sedco H	76-07-18 76-09-23	29.9 m 137.5	4 267.2 m P & A	⊙
Eastcan et al Verrazano L-77	Labrador Shelf	52° 26' 37.67" 54° 11' 51.14"	Petrel	76-09-01 76-09-29	12.8 182.8	459.9 P & S	⊙
Petro-Canada- Shell Wenonah J-75	Scotian Shelf	43° 34' 34.43" 60° 26' 13.72"	Sedco H	76-09-26 76-11-15	29.9 66.7	3 669.8 P & A	⊙
Eastcan et al Herjolf M-92	Labrador Shelf	55° 31' 53.30" 57° 44' 52.53"	Zapata Ugland	76-08-28 76-11-22	26.8 145.1	4 086.1 P & A	⊙
Petro-Canada- Shell Moheida P-15	Scotian Shelf	43° 04' 56.31" 62° 16' 44.32"	Sedco H	76-11-18 77-02-15	29.9 111.9	4 297.7 P & A	⊙
Shell-Petro- Canada Penobscot B-41	Scotian Shelf	44° 10' 02.44" 60° 06' 34.50"	Sedco H	77-02-18 77-03-30	29.9 117.9	3 444.2 P & A	⊙

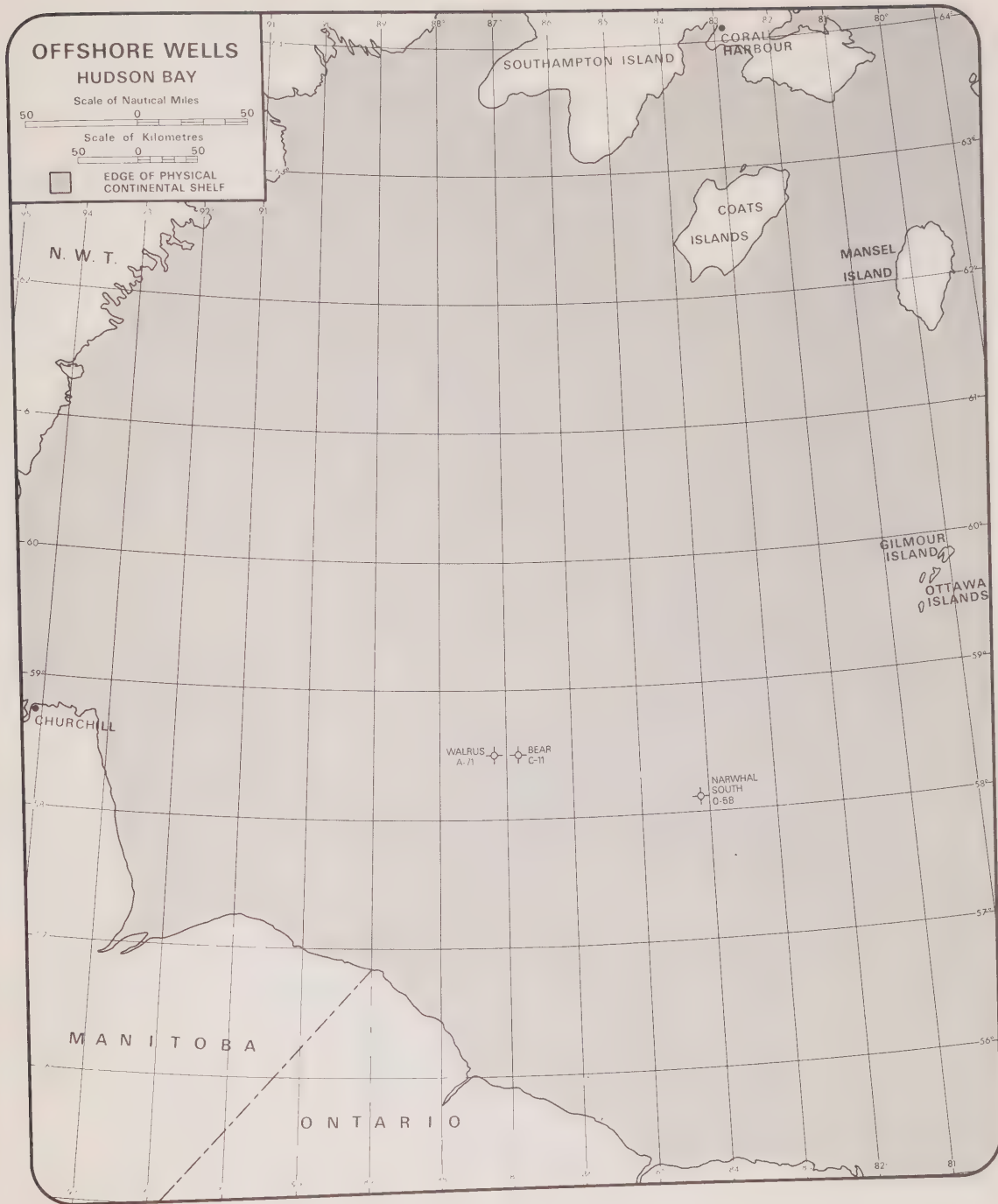
EAST COAST REGION: THE FOLLOWING WELL HISTORY REPORTS WILL BE RELEASED TWO YEARS FROM THE RIG
RELEASE DATE
* INDICATES VELOCITY SURVEY AVAILABLE

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Depth (RT) Well Status
Mobil-Tetco-PEX Migrant N-20	Scotian Shelf	43° 59' 56.24" 60° 17' 18.23"	Gulftide	77-07-29 78-01-23	26.1 m 13.7	4 668.7 m P & A ☼
Mobil-Tetco PEX Thebaud I-94	Scotian Shelf	43° 53' 43.67" 60° 13' 38.13"	Gulftide	78-02-26 78-06-03	29.9 28	3 962.4 P & A ☼
Chevron PEX Shell Acadia K-62	Scotian Shelf	42° 51' 42.54" 61° 55' 00.21"	Ben Ocean Lancer	78-04-11 78-08-02	12.8 866.2	5 286.1 P & A ☼
Mobil-Tetco PEX Cohasset P-42	Scotian Shelf	43° 51' 48.23" 60° 36' 16.62"	Gulftide	78-06-09 78-07-10	30.5 34.1	2 590.8 P & A ☼
Mobil-Tetco PEX C-Cohasset L-97	Scotian Shelf	43° 56' 37.19" 60° 29' 58.55"	Gulftide	78-07-13	30.5 21.6	4 871.9 P & A ☼
Total Eastcan et al Skolp E-07	Labrador Shelf	58° 26' 24.6" 61° 46' 09.5"	Pelerin	78-07-22 78-09-30	11.9 166.1	2 991.9 P & A ☼
Chevron et al Hopedale E-33	Labrador Shelf	55° 52' 24.34" 58° 50' 52.45"	Ben Ocean Lancer	78-08-09 78-10-01	11.9 559.9	2 069.6 P & S ☼
Total Eastcan et al Roberval K-92	Labrador Shelf	54° 51' 35.52" 55° 44' 35.76"	Pelerin	78-10-02 78-10-27	12.5 268.5	1 680 P & S ☼
Mobil Texaco PEX Venture D-23	Scotian Shelf	44° 02' 15" 59° 34' 21"	Gulftide	78-11-28	31.4 21.9	4 930 Drilling ○



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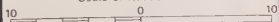
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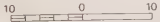
OFFSHORE WELLS

SABLE ISLAND

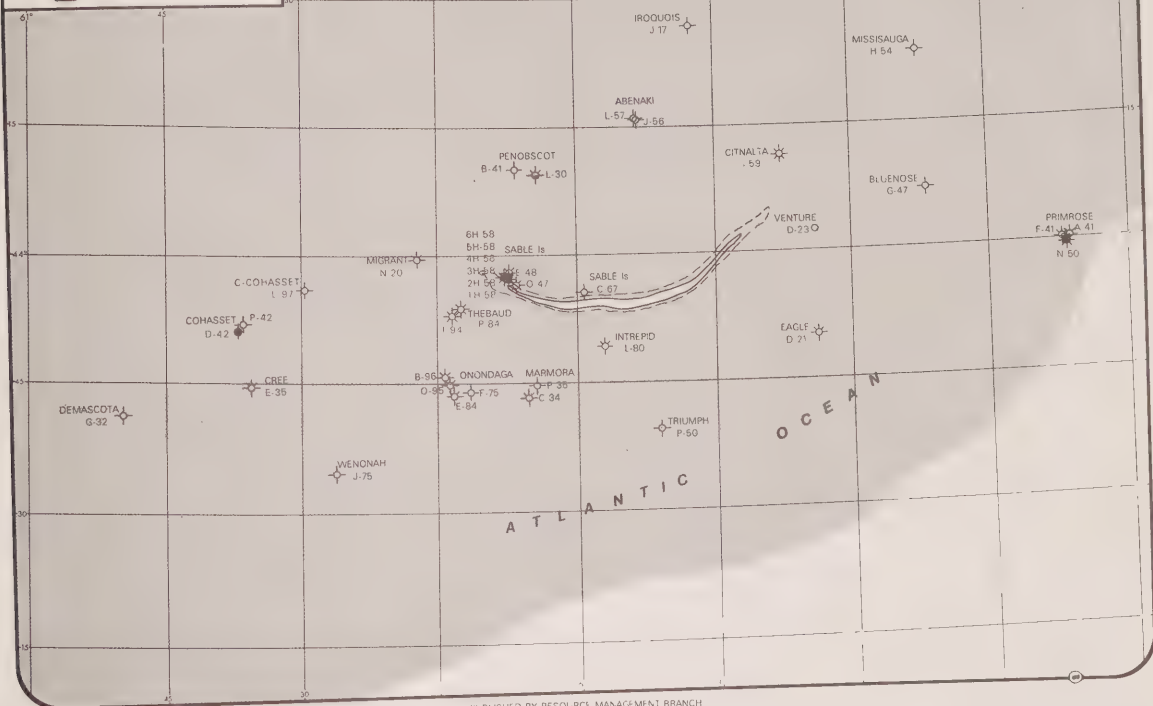
Scale of Nautical Miles



Scale of Kilometres



EDGE OF PHYSICAL
CONTINENTAL SHELF



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APPENDIX C

SELECTED CHRONOLOGICAL BIBLIOGRAPHY

GEOLOGY AND GEOPHYSICS

East Coast ,Offshore

Hudson Bay and Hudson Strait

West Coast Offshore

GEOLOGY AND GEOPHYSICS
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